SEP 2 4 1929

American Vocational Association

NEWS BULLETIN

VOLUME IV NUMBER III

THE SHIP

She starts,—she moves,—she seems to feel
The thrill of life along her keel,
And, spurning with her foot the ground,
With one exulting, joyous bound,
She leaps into the ocean's arms!

—*from* "THE BUILDING OF THE SHIP"
by Henry W. Longfellow.

PUBLISHED IN INDIANAPOLIS, INDIANA AUGUST, 1929

More than a Clerk was Awakened

NEARLY every night it happened.

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The young clerk stirred restlessly in his bed in the general store of the pioneer village, sat upright and peered through the window.

He could hear familiar voices of the night . . . the scream of a panther from somewhere up the river . . . the startled barking of Indian dogs on the nearby reservation . . . but that which had awakened him was more insistent.

It was the rhythmic "whang! whang! whang!" of a hammer on an anvil.

Through the window of the shop across the street, outlined against the dim light within, the clerk could see the blacksmith toiling at the anvil—a giant of a man, swinging a heavy hammer unceasingly.

"What a man for work!" exclaimed the clerk. All around the village, folks were talking about him—how he had come from Vermont with only $73, and a kit of tools; how he had built a forge of clay and rock the first day of his arrival and repaired the broken pitman shaft that was delaying important work at the saw mill; how he had stepped in and done all the iron work on the new grist mill, and how he was "working himself to death" over his new ideas about plows.

Many folks called this blacksmith a visionary, but the young clerk watched him admiringly at his night vigil.

Years later, after he, himself, had become a prominent manufacturer, this former clerk wrote:

"John Deere in his early experiences would make a plow and then go out to a prairie farm and give it a trial.

"If the plow did not work exactly to suit him, he would bring it back, take it to pieces, change the shape of the moldboard and try it out again.

"I would hear him hammering at ten o'clock at night when I went to bed at the store, and at four o'clock in the morning his hammering would wake me up; he had such indomitable determination to work out successfully what he had in mind."

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More than a clerk was awakened by the zeal of John Deere as he worked, regardless of the hour, perfecting the plow which he had invented. That which came from the hammering on his anvil awakened the agricultural wealth of a nation—the wealth which awaited the coming of the steel plow—and founded the great organization which today builds and sells John Deere quality equipment for practically every farming operation.

JOHN DEERE FARM EQUIPMENT

Leader in Quality for nearly a Century

JOHN DEERE
MOLINE, ILL.
THE TRADE-MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

American Vocational Association
NEWS BULLETIN

VOL. IV AUGUST, 1929 NO. III

PUBLISHED QUARTERLY BY THE AMERICAN VOCATIONAL ASSOCIATION

THE COMMITTEE ON PUBLICATIONS

R. W. GREGORY, CHAIRMAN
ROOM 225 STATE HOUSE

ADDRESS COMMUNICATIONS PERTAINING TO ADVERTISING *to* STUDIO PRESS, *Publishers* 340 Century Bldg. Indianapolis

Z. M. SMITH, SECRETARY
INDIANAPOLIS, INDIANA

ANNUAL SUBSCRIPTION PRICE TO MEMBERS OF THE ASSOCIATION, TWENTY-FIVE CENTS

ENTERED AS SECOND-CLASS MATTER SEPT. 8, 1926, AT THE POST OFFICE AT INDIANAPOLIS, IND., UNDER ACT OF MARCH 2, 1879

THE PRESIDENT'S MESSAGE

You will note in this issue the colored double-page spread on "The Ship." "The Ship" is an institution that deserves every support and of which we may well be proud. We certainly feel grateful to both the Captain and Crew.

It is very fortunate when one has a large and compelling reason for doing the thing that one would wish to do anyway. All people engaged in vocational education this year happen to be in that very auspicious situation.

I presume there is not an intelligent person in the United States, familiar with our country's history and interested in its welfare, but who has a strong desire to visit New Orleans. I am told no one has ever visited New Orleans without wishing to return. When, added to this, the call comes to make one's visit in early December, it is safe to assume that large numbers of people will be drawn toward the Crescent City.

I am told that some of our members and their friends intend to extend their trips somewhat into the pleasant gulf waters and surrounding territory, and that some who ordinarily might not attend our meetings are planning to make use of the favorable rates for an outing at this time.

All the circumstances point toward a large and enthusiastic gathering. A recent trip into the south indicates that that section of our country is going to do its share, the normal pride and hospitality of the people being somewhat accentuated by responsibility for the success of the meeting. Either of these factors alone would be sufficient to assure us all an excellent time and a profitable meeting. Both taken together insure good results.

Aside from all these, we, as an organization, have a large program to promote. We are showing evidences of progress and symptoms of success. All over this country circumstances are driving *Leisure for Education* out of the lives of millions of our young people before they are eighteen years of age. On the other hand, we note a tremendous adult education movement urging *Education for Leisure*.

One of the main objectives of our movement must be **to establish leisure for education in the lives of the employed youth of our land** to the end that they may go into life better fitted both to make a living, and to live.

Our Second Life Member

American Vocational Association Secretary Honored

Dr. Z. M. Smith, State Director of Vocational Education for Indiana and Secretary of the American Vocational Association was presented with a Life Membership in the American Vocational Association by the vocational agriculture teachers of Indiana. The presentation was made during the Fifteenth Annual Conference of The Indiana Vocational Agriculture Teachers' Association, June 22, 1929. The Vocational agriculture teachers of Indiana are deeply appreciative of the long continuous service that Dr. Smith has rendered vocational education in Indiana and took this means of expressing to him this mark of esteem.

Indiana was one of the few states to have enacted a vocational education law prior to the passage of the Smith-Hughes Act. The Indiana Act was passed in 1913 and Dr. Smith was made State Supervisor of Agricultural Education at that time. He has served in this capacity since. In recognition of the work he was doing in agriculture and because of his thorough understanding of the whole field of vocational education in the state, the Indiana State Board of Education promoted Dr. Smith to the office of State Director of Vocational Education in 1923. Since December 1924, he has been Secretary of the American Vocational Association and has worked tirelessly for the upbuilding of the organization. His record stands on its merits and it is quite fitting that one who has been so largely responsible for the growth and strength of an organization should be an honored member therein.

Dr. Z. M. Smith
State Director of Vocational Education for Indiana

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The Ship

We are deeply indebted to Mr. Frank K. Phillips and The American Type Founders Company for the feature spread of THE SHIP in this issue. Mr. Phillips very willingly consented to do all the work on the feature and his company furnished the materials and did the printing. We are glad to give them this credit for so fine a performance of cooperation. If you like it, tell them for they are the responsible parties.

Objectives Again

It has been said that objectives are necessary in order for an activity to be intelligent. There is so much truth, and truth easily recognized, in this statement that the term "objectives" has become somewhat of a password to the inner circle of approval in agricultural education.

There seems, however, to be differences in the nature of objectives which have been set up, for example: (1) "Every boy $1000 in the bank;" (2) "Pure bred dairy cattle on every farm;" (3) "Ability to select high producing dairy cattle". One wonders if a teacher might make his activity equally intelligent by choosing any one of these three. In reality, "Every boy $1000 in the bank" as an objective seems to remind one of the banker rather than the teacher.

Apparently there is a tendency to label certain concrete and tangible aspects of agriculture or the teacher's activity as the objectives of instruction in vocational agriculture. It seems quite possible that it would clarify our own thinking and make our activities even more intelligent if we were to agree to and cling to *human abilities* as the *true objectives* of instruction in agriculture. From this point of view, legumes, pure bred hogs, and dollars are not objectives but are of significance to the teacher as materials which may be used in stimulating and directing the acquirement of abilities on the part of his students, abilities which will enable the students to adjust themselves to the farm environment, an environment always in a flux—shifting markets, new insects, spreading diseases, wasting soils, improved machinery and new discoveries of science. To establish a given number of pure bred livestock, a given number of acres of legumes and the like on farms are not true objectives of vocational agriculture. The real objectives are abilities on the part of the students to determine and establish the appropriate numbers of pure bred animals, acres of legumes and the like for any situation in which they may find themselves.

Holding to human abilities as the true objectives of agricultural education, tends to keep the teacher-pupil relation from degenerating into a foreman-laborer relationship where activities are governed by the purpose of producing some concrete and tangible product, while the abilities developed by the boy become merely incidental, if not accidental. Setting up human abilities as objectives not only gives the activities of the teacher proper direction, but also appropriate balance. Activities are engaged in which may lead not only to those controls of conduct often called skills (habits) and knowledges, but also to those important controls we call ideals and attitudes. If a farm boy can be stimulated to acquire such controls of conduct as open-mindedness to the discoveries of research and willingness to seek expert advice, he will have far greater ability to adapt himself to his ever changing vocation. It is true that we do not know a great deal about the teaching of ideals and attitudes, but at least the first step is to become conscious of ideals and attitudes as objectives.

Briefly then, the true objectives of instruction in agriculture are controls of conduct on the part of human beings, i. e. human abilities. All else is activity toward these ends. Possibly human abilities as objectives do not have the so-called practical aspects which some seem to desire, but this does not offset the fact that they are the true objectives of education. Those aspects of vocational agriculture usually called practical and concrete, i. e. acres, hogs, dollars, yields, are in reality material factors involved in the activities established in order to attain the true objectives, i. e. certain human abilities. Setting up such concrete aspects of agriculture as the objectives of instruction in vocational agriculture may confuse our thinking and cause our work to fall far short of its possible values.

It seems that after agreeing upon certain human abilities as objectives, it would be satisfactory merely to label the activities (with all their concrete and so-called practical elements) selected for emphasis at any time as "Activitivities (or possibly — "Program of Work"). These activities could be stated in terms which describe briefly the characteristic of the activity expected, for example: Completing 90% of all projects. Even if it seems especially helpful to use some other label for these activities which would emphasize the desired characteristics of the activities, some term other than "Objectives"—possibly "Activity Goals" would be more appropriate.

At least we would never lose sight of the fact that the true objectives of instruction in vocational agriculture are certain controls of conduct on the part of human beings and that the "Activities" (or "Program of Work") should be set up for the purpose of developing certain desirable human abilities rather than to change any particular aspects of agriculture as such. It is true, of course, that from the point of view of measurement the concrete tangible aspects of agriculture or the farm, under certain conditions, may be an indirect indication of the extent to which the appropriate controls of conduct have been acquired.

B. C. LAWSON, *University of Illinois*

"I wish to take this opportunity to congratulate you on the last issue of "News Notes". This magazine is becoming more valuable all the time and the last issue was particularly fine. More power to you!"

Very truly yours,

H. A. CAMPION, *Principal, Frank Wiggins Trade School, Los Angeles.*

Endowment Life Membership
in the
American Vocational Association

All persons interested in vocational education are eligible to become life members of the American Vocational Association.

The administrative body of the American Vocational Association is made perpetual through provisions of the constitution of the organization. This administrative body is designated the executive committee which consists of the president, the treasurer, the retiring president and six vice-presidents, two of whom are elected annually for a term of three years. The president and treasurer are elected annually. It has been customary for the treasurer to be elected to succeed himself for several years.

The objects of this Association are:—

(a) To assume and maintain active national leadership in the promotion of Vocational Education.

(b) To render service to state or local communities in stabilizing and promoting Vocational Education.

(c) To provide a national open forum for the discussion of all questions involved in Vocational Education.

(d) To unite all the Vocational Education interests of the country through membership representatives of the entire country.

The association has a membership of 8,147, representing every State in the Union and parts of Canada. There is every indication that by this time next year the membership will exceed 10,000.

WHO SHOULD BECOME LIFE MEMBERS

1. Any one who is now a member of the association.

2. Any one not now a member but who is interested in vocational education.

3. A membership might be given by some interested individual to a university library, or a state library as a memorial to some member of his family or other friend.

4. A membership might be given by some interested individual to a worthy young man or woman who gives promise of rendering outstanding service in the field of vocational education.

5. State teachers' associations and similar organizations could well afford to provide an A. V. A. life membership for the office of executive-secretary of their organization.

6. Industrial concerns could well afford to provide an A. V. A. life membership for the office of their president, educational director, or chairman of the board of directors.

7. State and county agricultural or home economics associations would profit by providing an A. V. A. life membership for the office of their president, or secretary, or educational director.

The life membership fee is only one hundred dollars.

Send application to Z. M. Smith, Room 225, State House, Indianapolis, Indiana.

APPLICATION BLANK

I....., Official Title.....

P. O....., State.....

hereby apply for life membership in the American Vocational Association for myself or

.....

(If not for self, insert above the name and address of the beneficiary.)

New Orleans Convention Hotel Accommodations

HOTEL ROOMS AND RATES

	Without Bath				With Bath					
	Single	Rate	Double	Rate	Single	Rate	Double	Rate	Twin Bed	Rate
ST. CHARLES	50	$2.00-2.50			75	$3.50-4.00	250	$5.00-7.00		
MONTELEONE					25	3.00-3.50	25	5.00-6.00	25	$6.00
MARBERE					50	2.50-3.50		4.00-5.00		5.00-6.00
ROOSEVELT						4.00-6.00		6.00-7.00		8.00
BIENVILLE						3.00-3.50		5.00-6.00		7.00
LAFAYETTE					Few	3.00-3.50	50	4.00-6.00		
DE SOTO	10	2.50	15	4.00	15	3.50-4.00	15	5.00	20	6.00
JUNG (400 Rooms)						3.00-3.50		4.00-5.00		4.00-5.00

JUNG ..... 30 Rooms for 4 persons per Room, $7.00, $8.00 per day.

Printing Conference Echoes

The Eighth Annual Conference on Printing Education, held at the Carnegie Institute of Technology, June 24-26, 1929, was notable for its comprehensive program and for the quality of its personnel. The program included topics that required expert handling. The persons in attendance numbering 125, from 21 states and the District of Columbia, were leaders in education and in industry. The majority of them were in attendance at each one of the eight sessions crowded into the three days.

Two inspection visits were arranged. The well-equipped shops of the Department of Printing at Carnegie Institute of Technology attracted the delegates. Through the courtesy of the Miller Printing Machinery Company, taxicab transportation and an evening luncheon were furnished at their Pittsburgh plant which proved a delightful as well as profitable experience.

Ira D. Pilliard, Head of the Department of Printing, Milwaukee Vocational School, Milwaukee, Ralph W. Polk, Head of the Department of Printing, Cass Technical High School, Detroit, and George C. Huckins, New York State Teachers College, Buffalo, assisted the general chairman, Fred J. Hartman, Director of the Department of Education, United Typothetae of America, Chicago, in presiding over the various sessions.

Graduates of Printing in Schools Do *Enter the Printing Industry*

Do young men who take printing courses in schools of printing enter the printing industry? This question was answered in a comprehensive report which was prepared by the U. T. A. Department of Education for presentation at the Eighth Annual Conference on Printing Education, which was held at the Carnegie Institute of Technology, Pittsburgh, June 24-26, 1929. The information for the report was compiled from data supplied by the leading printing schools of the United States and Canada.

The first census of the kind was made last year. The following is the tabulation of the returns of 113 representative schools of printing for the school year 1927-28:

Type of School	No. of Schools	1927-28 Graduates	Graduates Entering Industry	Percentage Entering Industry
Elementary Schools	2	75	0	0%
Junior High Schools	16	572	90	16%
Junior-Senior High	7	114	36	33%
Senior High School	33	586	173	29%
Trade or Vocational	39	1751	1590	89%
Plant or Shop School	4	79	79	100%
College	4	38	31	82%
Special Schools	8	153	82	53%
Toral	113	3368	2081	62%

The above table quotes hotel accomodations and rates from some of the leading hotels in New Orleans for the annual meeting of the American Vocational Association to be held there December 5, 6, 7.

We beg to call your attention to the fact that the winter season will have opened in the South and you should make your reservation early. In practically all of the letters accompanying these rates, statements were made to the effect that reservations should be made not less than ten days before the convention. We have every assurance of being taken care of in fine shape but *reservations should be made early.*

Rumblings of the New Orleans Convention

Already we are beginning to hear of the preparations that are being made for the New Orleans Convention of the American Vocational Association. Program Committees are working overtime to give us a real convention. The The Trade School Principals Association will meet on Thursday morning, December 5, to enjoy the following program that has been prepared for them by their chairman Mr. Urban G. Willis. We want to congratulate Mr. Willis on having taken time by the forelock and given his leaders plenty of time for some real preparation. Trade School Principals should enjoy a real treat. You can't afford to miss these:

"Problems of the Small Trade Schools for Girls"—Elizabeth M. Fish, Principal of the Girls Vocational School, Minneapolis, Minnesota.

"Productive Work in Trade Schools", O. H. Turner, Superintendent, David Ranken School of Mechanical Trades, St. Louis, Mo.

"Making a Teacher of a Mechanic" —Arthur B. Mays, Professor of Industrial Education, University of Illinois, Urbana, Ill.

"Securing Community Cooperation and Support for a Public Trade School" —W. B. Kamprath, Principal of the Elm Vocational School, Buffalo, N. Y.

NEWS NOTES

OKLAHOMA

OLLIE DUROY, *Oklahoma Junior Master Farmer, American Farmer.*

Ollie Duroy is the son of E. A. Duroy, a farmer living just northwest of Ponca City. He graduated from the Ponca City high school last June, being an honor vocational agriculture student.

He got his start in Shorthorn cattle while in the eighth grade of the rural school he attended, when he trapped opossums in the bottoms of the Bois De Arc Creek, which runs through the Duroy farm, and sold them for $5.00, which his father invested for him in a Shorthorn calf. During his high school period. including four years of vocational agriculture, Duroy carried as animal projects, one Shorthorn breeding project, one fattening calf project, and two wheat projects. Besides these projects, he had as supervised practice, the breeding of Shorthorn cattle and at the end of his school years, he had eight head of such cattle, six of which were registered. He also exceeded the yield of wheat for the community in each of his wheat projects.

His Shorthorn cattle business made him a total gain after payment of all expenses in the eight years that he has been interested in them of $810 at the time school was out last spring. His two wheat projects consisting altogether of 70 acres, have made him a profit of $543.35.

Since his graduation last June, he has added several purebred animals to his herd, which he values at $1350.00. He has shown successfully at various fairs and watches the sales closely.

In school, Duroy was a leader in the vocational agriculture group. He was active in the agriculture club which was in existence in his school before the Future Farmers of Oklahoma was organized. He is a charter member of the local F. F. O. and was its president the first two years of its existence. He was instrumental in the Ponca City F. F. O. winning the Holstein bull calf which made the trip from Tulsa in an airplane. He was the outstanding winner of the M. K. T. educational trip to St. Louis last October.

In his home community, Ollie has always been active in the Epworth League and the rural Sunday School. Since his graduation from high school, he has taken an active interest in the rural P. T. A. and is a member of the short unit course in Dairy and Poultry Production being put on by the high school vocational agriculture department in his community. He is still president of the Future Farmers of Oklahoma of Ponca City, and very active in all of its affairs.

JUNIOR MASTER FARMERS
1929

JEWEL BISWELL, 19 years old lives on a farm two miles south of Claremore. He has been farming on his own responsibility for four years that he has studied vocational agriculture. His projects, beginning the first year with six acres of cotton and fifteen acres of wheat, have increased in number and scope each year. The profits were carefully invested in farm enterprises. This year, in addition to attending school, making passing grades and participat- in some of the school activities, he is farming 120 acres of land with a tractor which he owns. His improved practices in seed selection and proper management of hogs, poultry, and dairy cows, have all contributed to his reputation and influence in the community. He keeps accurate and complete records of his farm business on a farm account book prepared by Mr. Thorfinson of the Extension Division of the A. & M. College. He repairs his own farm machinery and is in every way a thrifty and independent farmer. He will be fully equipped to engage in farming which he expects to engage in as soon as he has finished his training. It is needless to say that he is a leader in the school and community. Among such responsibilities, he is president of his local chapter and a member of the executive committee of the State organization of the Future Farmers of Oklahoma.

WARREN MCCARTY of Quinlan, Oklahoma, seventeen years old, has made a splendid record in the agricultural work in his community during the entire four years he has studied vocational agriculture. He has made a contribution to the agriculture of his section by demonstrating the value of cowpeas in crop rotations, producing thirty-eight bushels of wheat to the acre under such practice when the average was only about twenty. He has been active in student affairs, superintendent of a department in the county fair, secretary of the Northwest Herd Improvement Association whose membership is made up mostly of mature men, and has been repeatedly high in the State in grain judging. He has consistently increased the number and scope of the projects which he owns and is a splendid student in addition to his fine qualities of leadership which he exercises to the benefit of his community.

RONALD FORD of Helena, seventeen years of age, submitted the greatest number and variety of substantial and profitable projects of any of those considered. At the end of his third year, he will have completed twenty-one, worthy, life-sized projects, and in two years, shows a net profit of $1,798.36, with good prospects for doubling that amount this year. He submits a carefully compiled statement which is vouched for by his teachers and others who are acquainted with his splendid record as a young farmer. He also has a splendid record of services in his community in the matter of helping to disseminate useful information and improving practices. He is an honor student in school, a teacher in Sunday School, vice-president of Christian Endeavor, a leader in Boy Scout work, president of his class in high school, a good athlete and all round leader in addition to being a successful young farmer.

ROBERT MASSENGALE, is a senior of the Boswell high school, a section of Oklahoma which has suffered in recent years from a variety of misfortunes that have befallen them in their agricultural activities. A more dejected group of farmers than they were two or three years ago would be hard to find. This attitude has been greatly changed and much of it is due to the optimism and activities of a group of Future Farmers. One of the most capable and enthusiastic of these is Robert Massengale, locally called "Colonel." In addition to his personally owned projects, he has been largely responsible for many improved practices effecting hogs, dairy cows, poultry, etc. A notable achievement of the Boswell group, has been the successful operation of a community fair officered and managed entirely by the boys, Robert occupying a major position of responsibility. In addition to being president of the Boswell Chapter of Future Farmers, he is president of the senior class, assistant mana-

ger of the High School News, valedictorian of his class, and spends much time in helping neighbors who wish to inaugurate some improved practices. The profits accruing from his personally owned projects approximate $500.

MARION SWINEHART of Carrier, lives with his widow mother on a farm near Carrier and has been active manager of the 160 acre farm on which he and his mother have lived during the past five years. He has greatly improved this farm and made a decided success of the farm business in addition to attending school and participating as one of the leaders in a large number of school activities that characterize the average small high school. He has bought from his savings, twelve acres of land on which he now lives and which he is improving. His personally owned farm property includes several pure-bred hogs, fifteen sheep, eight cows, and seventy-five hens. He has done much of his own work on the farm, including the erection and repairs of buildings, rates high in his school work, is a leader in all of its activities, takes an active part in the young peoples' church work, in addition to officiating in various capacities in his local F. F. O., and is now vice-president of the State organization of Future Farmers. (Vice Pres. in 1928-29.)

MARION LEGAKO, nineteen years old, Wellston, has presented a most consistent, long time record of endeavor in agricultural improvement. It appears that, for several years, Marion has taken advantage of every opportunity to prepare himself to become a successful farmer, being first a 4-H Club member for some time before he entered the high school, and becoming a student of vocational agriculture. During his four years of high school work, he has been a consistent member of the student organizations of the agriculture class and has carefully kept records of all of his activities and enterprises, and has several hundred dollars out at interest resulting from his earnings and winnings in contests and exhibits. He expects to enter A. & M. College next year to train for larger usefulness in the field of agriculture. Many improved practices are in evidence on his home farm that are traceable to his efforts and he devotes much time and effort to various types of leadership activities designed to improve the agriculture in his community. As a result of his training, he is the acknowledged leader in many activities one of which is County Club Coach for the 4-H Clubs of the County in which he was an acting competing member until the organization of the Future Farmers of Oklahoma afforded him opportunities for leadership in this group in which he served as president and now serves as a member of the Executive Committee of the State organization.

MISSOURI

Do You Know:

We have 127 teachers in Vocational Agriculture in 84 counties in Missouri?

We spend $212,000.00 annually on reimbursements to school boards for agriculture alone?

Eight or ten new schools will be added next year?

More than 3500 future farmers are enrolled in all day classes?

Our teachers carry on a Community Improvement Contest which attracts much local attention?

Definite objectives are set up and a long time program of work is followed?

The federal government grants $226,762.49 annually to our State on condition that this amount is matched?

School Boards are given two-thirds the salary of full time agriculture teachers from State and Federal funds?

Practical home training is offered in 75 high schools?

Eight or ten new Home Economics schools will be added next year?

Evening schools for adult women are carried on in home making, 111 classes, more than 3000 women enrolled?

Classes in trades and industries are carried on in sixteen centers and an annual subsidy of $140,800 is given school districts?

Several thousand students are receiving a practical training to fit them to earn a good living?

Vocational education is rapidly gaining in popularity?

The present Legislature set aside $452,000.00 to match the Federal grant?

INDIANA

Dr. R. M. Stewart, Professor of Rural Education, Cornell University, administered a three weeks intensive course in advanced methods of teaching at Purdue University this summer for teachers of vocational agriculture. The teachers enrolled spent full time on the course for which they were granted three semester hours of credit.

Miss Mary Beeman, State Supervisor of Home Economics Education in Indiana since 1924 resigned May 1 to become Head of the Home Economics Teacher Training Department of Ball Teachers College, Muncie, Indiana. She was succeeded by Miss Ethell Snodgrass, recently Head of the Home Economics Department of State Teachers College, Hays, Kansas.

After September 1, Indiana will have three Itinerant-Teacher-Trainers of Vocational Agriculture in the field. These men are employed by the teacher-training department of Purdue University. Mr. K. W. Kiltz, Vocational Agricultural teacher for ten years in Indiana has been appointed to the third position.

KANSAS

A Study of the Occupational Status of Farm Boys Who Have Had Two or More Units of Vocational Agriculture in Kansas High Schools

This study does not include the Vocational Agriculture enrollment of 1927-28.

Number reported on: 2759.

Now in high school: 451, or 16%.

Not now in high school: 2308, or 84%.

Farming: 1462, or 63% of those not in high school.

Farming with father: 1006, or 70% of those farming.

Farming in own right: 335, or 23% of those farming.

Status not reported: 121, or 7% of those farming.

Number who are farm owners: 125, 37% of those farming in own right.

Studied or now studying in College of Agriculture: 157, or 7% of those not now in high school. (Not assured all are studying agriculture, however.)

Studied or now studying in non agricultural college: 152, or 6% of those not now in high school.

Occupations allied to agriculture: 110, or 4% of those not now in high school.

Graduated from high school: 1446, or 62% of those not now in high school. (This probably means the number and per cent which graduated from the high school in which they studied vocational agriculture. No record is had of those who later removed from the community and graduated from another high school.)

Farming, attending agricultural college, or in occupations allied to agriculture: 1729, or 74+% of those not now in high school.

NEW YORK

VOCATIONAL SERVICE FOR JUNIORS

New York is a pioneer in a departure which is just being initiated in the employment service of the State Labor Department. An item in the state budget for the fiscal year of 1929-30 provides for the establishment of a Division for Junior Placement, a thing no other state in the Union has. The sum is inadequate, only $20,000, but Miss Frances Perkins, Industrial Commissioner, who is much interested in the plan, is determined to make the most of it. She has appointed Miss Clare L. Lewis, who has been head placement counselor for the Vocational Service for Juniors, as director, and on July 1st Miss Lewis started out to reorganize and coordinate the junior employment offices which the Labor Department maintains in continuation schools in Albany, Buffalo, Rochester, Syracuse and New York City.

There are thirteen of these, nine being in the metropolis, and the combined registration of the continuation

schools where they are situated is over 65,000. In New York City alone nearly 50,000 children take out working papers in the course of a year. Not only educators but industrial leaders and labor men are perceiving, more and more clearly, that these young job-hunters constitute a special problem. Up to now New York's junior employment offices have been run as part of the adult service, and there has not been much attempt to fit the child to the job, or to influence boys and girls who leave school because of restlessness or maladjustment in their classes, rather than from poverty, to go back to school and get a little more preparation for life.

That will all be changed. Five expert employment counselors, all the appropriation will admit of, will be engaged, and stationed where they are most needed. The present workers will be retained and trained in the new methods, of which two ironclad rules will be, the new director says, careful sympathetic personal attention for every child applicant, and a previous visit to every place to which a child is sent to work. Miss Lewis intends to use the free placement bureau which the Vocational Service for Juniors operates in connection with the West Side Continuation School in Manhattan as a training school for her staff, bringing the members there in rotation for a week or so of intensive work.

PIPE WELDING IN EVENING CURRICULUM

BUFFALO, NEW YORK

The everchanging practices of modern industry are responsible for the organization of classes for pipe welders at Elm Vocational School. Pipe welding is a new trade which is rapidly finding its place in plumbing and steam fitting.

The local organization of steamfitters and plumbers prevailed upon the Board of Education to provide instruction for welding as a special evening course. Their request was granted and now the Elm Welding Shop is as busy as a bee hive five nights a week as the men practice welding and cuts on pipe.

Registration took place on Feb. 25th at which time 115 journeymen in the aforementioned trades were on hand to enter. The facilities of our Welding Shops were not adequate to handle the large number who appeared but through the efforts of Mr. Wing, our Deputy-Superintendent, we were enabled to secure enough equipment and materials to operate a class on Monday, Tuesday, Wednesday, Thursday and Friday evenings. Twenty-four men are registered in each class which is in session from 5:30 to 9:30 P. M.; a four hour shop period. Classes will continue for ten weeks.

Mr. Ralph Bannar, Mr. Joseph Shields and Mr. John Mutz have been appointed instructors. They are being assisted by pipe welding engineers supplied by the Air Reduction Sales Co. Mr. Doebert is supervising the work.

It is interesting to note that many of the steam heating pipes at the New York Central Station, now being completed, are welded. Also that in the New Curtiss Airplane plant almost all of the pipe work in the plant will be welded. This new trade is gaining in importance every day.

ELM GRADUATE TO BE SELECTED FOR FLINT SCHOOL OF TECHNOLOGY

The acute shortage of efficient foremen, executives and first class mechanics, who can do their own thinking and sell their services, is a problem confronting America's automotive captains. The Buick Motor Co. is one organization which has set out to eliminate this undesirable situation. They have organized a school at Flint, Michigan, called the Flint School of Technology. Students are recruited from all portions of the United States. The territory in New York State, extending to the east as far as St. Lawrence county, south to the northern part of Pennsylvania, and west to the New York State line, is permitted to send two boys to the Flint School.

Mr. Peter J. Maxner, Service Superintendent of the Buffalo Buick Branch, addressed the Elm Assembly on Feb. 20, 1929. The outstanding surprise of Mr. Maxner's talk was that Elm Vocational High School would be honored by being given the privilege of furnishing one of the boys to fill the quota of two, allotted to the large territory as stated previously.

ELM VOCATIONAL HIGH STUDENTS ACTIVELY EMPLOYED

Recently a census was taken by the roll call teachers from which the following record was established:

88 boys work after school.

144 boys have savings accounts.

34 boys are members of the Y. M. C. A.

59 boys are members of various athletic, social, and study clubs.

35 boys are members of the Boy Scouts of America.

The above tabulation indicates that our student body is actively engaged in worthy employment or some recreational club. No finer spirit could be exemplified than that some students are assisting their parents by working after school.

AVIATION SHOW

The Aviation Department of the Elm Vocational High School had an exhibit at the Buffalo Aircraft Show at the 106th Armory, Masten and Best Streets, from March 23 to March 29.

The exhibit consisted of students working on an aviation engine. There was also exhibited a complete line of photographs of the Aviation department of the school.

PERSONALS

(About faculty members of Elm Vocational High School.)

Mr. Michael F. Steffen, head of the Automobile Mechanical Department, was in training during the past half year as an airplane pilot. He received his Private License from the Department of Commerce last December.

Mr. John C. Heinike, head of the Printing Department, was recently elected Secretary of the Buffalo Club of Printing House Craftsmen for the fifth consecutive term. He will be Chairman of the Wednesday session at Pittsburgh on June 26th, of the Eighth Annual Conference on Printing Education.

Mr. Edward J. Fee, instructor in Printing Presswork, was elected Vice-President of the New York State Printing Teachers Association.

OREGON

Oregon worked out quite a pretentious program for a combination intensive summer session and conference in the three fields of agriculture, trades and industries and home economics.

Mr. R. W. Foard of Colorado was the visiting instructor in agriculture, and offered a course in "Methods of Organizing and Instructing Part-Time and Evening Classes in Vocational Agriculture". Mr. H. H. Gibson conducted a course in "New Methods of Teaching Vocational Agriculture". Mr. Paulson, State Supervisor of Agricultural Education discussed Annual Programs, Community Improvement, Contests, and How to Conduct Community Surveys. Mr. Clyde Walker offered courses in "Agricultural Engineering".

The visiting instructor in trades and industries was Mr. Geo. C. Mann, lecturer in education at the University of California, and Director of Vocational and Part-Time Education at Berkeley. He offered "Problems of Instruction in the Field of Industrial Education", and "Part-Time Cooperative and Trade Extension Education". Mr. O. D. Adams offered a course in "Civic and Employment Relations for Vocational Instructors".

In the home economics field the work was under the direction of Miss Frances M. Wright, state supervisor of home economics education, under the title of "Seminar and Special Methods in Smigh-Hughes Home Economics Education. An effort was made to show the set-up of the Smith-Hughes program in both day school and adult classes, differences in objectives of vocational home economics, and general home economics, and special consideration given to content and method of presenting related science and related art

classes. The problem method of teaching was used.

During the recent convention of the Inland Empire Education Association in Spokane, Washington, Mr. O. D. Adams, State Director for Vocational Education in Oregon, addressed the group on "Trade and Industrial Education in the State of Oregon, Its Program, and Future Development."

Miss Frances M. Wright, State Supervisor of Home Economics in Oregon, talked on the subject "Vocational Home Economics in Oregon". Mr. O. I. Paulson, State Supervisor of Agricultural Education in Oregon, was the Chairman of the Vocational Section. Mr. Wm. Kerr, State Director for Vocational Education in Idaho, was elected chairman for the coming year.

WEST VIRGINIA

Increase for mining and industrial education. The session of the Legislature of 1929 made a 100 per cent increase in the special appropriations for promoting mining and industrial education through the Extension Division of West Virginia University. Appropriations for these purposes, which will be subject to matching from Federal Funds, will be $40,000 for each year of the next biennium.

Provision for crippled children. For the first time the Legislature of 1929 made an appropriation for the physical restoration of crippled children by providing an appropriation of $80,000 for the two years for this purpose. The fund will be administered under a special commission and the state rehabilitation service will cooperate by undertaking the vocational training of children who become eligible for such training under the rehabilitation law.

More Vo-Ag teachers needed. The demand for departments of vocational agriculture is greater than the supply of trained teachers. Our State presents the problem of making the salary of Vo-Ag teachers more attractive if we are to interest and hold the highest type of leadership in this important field of service.—*J. F. Marsh, State Director of Vocational Education.*

SOME RECENT DEVELOPMENTS IN THE VOCATIONAL SCHOOLS FOR TRADES AND INDUSTRIES IN NEW JERSEY

Among the various activities to which the vocational schools have recently been giving attention, the following are of special interest:

Elizabeth

For several years the Elizabeth Vocational School has maintained evening classes for apprentices in the painting and decorating trades. These classes were the outgrowth of efforts on the part of the Master Painters' Association and interested labor unions to improve the quality of their apprentices and to develop the skill and technical knowledge of the workers in this trade. The Vocational School, with the assistance of the State Department of Public Instruction, has recently made a survey of the trade, preliminary to organizing courses in painting and decorating in the day school. The survey was followed by a conference of employers, labor men and a representative of the State Department of Public Instruction with the Board of Education in Elizabeth for the purpose of considering the findings of the survey and making such recommendation as might appear advisable. As a result of this meeting, a request has been presented to the Elizabeth Board of Education to establish day courses, and recommendations have been made in regard to the length of course, requirements for admission, and details concerning the course of study.

Atlantic City

In order to bring about more effective cooperation between the vocational school and industry, a member of the faculty has recently been appointed Employment Manager, with special responsibility for the placement of graduates of the school. It is the duty of the employment manager to make contracts with the employers of the city in whatever way may appear advisable and to gather information in regard to employment conditions and the various positions that may be advisable.

The school reports that at present all of the graduates are employed and that requests are being made for boys before they have completed their course. As a result, a number of boys in the senior class have been placed on a part time basis, spending one month in the school and the next month in employment. This plan gives the pupils an opportunity to secure practical experience under the supervision of the school and enables the employer to become acquainted with the qualifications of various boys before they are permanently engaged. It is reported that the plan is working well and is regarded with favor by both the school and employers.

Bayonne

One of the most important considerations in placing young people in industry is to make certain that they are physically qualified to fill the positions in which they are placed. Due to lack of adequate facilities for studying this phase of the placement problem, the Bayonne Vocational School, in common with other schools, has occasionally had the experience of graduating boys in a given course and then finding that because of some physical defect, they could not be advantageously placed in that occupation. In some cases this problem could readily have been solved during the boy's school life either by placing him in a different type of school or by undertaking a remedial course of treatment. Since last September the medical department of the Bayonne School, with the aid of the Bayonne Hospital and the pupils' parents, has been giving to the boys of the vocational school the same type of examination that the more progressive industries require. By this means it is hoped that physical defects will be detected and dealt with more effectively than has been possible heretofore.

As a further measure of vocational guidance, the Bayonne Vocational School has recently had completed by the Davis Studios, a three-reel picture of the school. This picture shows every shop and many of the classrooms in the school in action. There are numerous "close-ups" showing the operation of the various machines in the shops. Many of the extra-curricular activities are also depicted. The picture shows the school participating in a city parade, an athletic meet, swimming pool exercises and at lunch in the cafeteria. It shows, in short, every phase of curricular and extra-curricular activity in the school.

The picture was paid for by the proceeds of two moving picture shows in the school in which this reel was the feature. In a week or so this picture will be shown in the largest local theatre for an entire week as a portion of their regular program. By this means some twenty thousand people will be given an opportunity to become acquainted with the school. Thereafter it will be shown—prior to graduation time—in all the Junior High Schools as a part of the guidance program in the school. It is hoped by this means to give the boys of these grades a real picture of what life in the Vocational School is like. If interested, they, their parents and teachers will then be invited to inspect the school and obtain all the information they desire relative to the different courses offered.

Paterson

One of the principal problems facing all progressive schools is that of keeping in touch with the developments of modern educational technic in school work. It is for this purpose that professional improvement courses for teachers are offered by many of the colleges and normal schools. These courses are in the main of great value in informing teachers concerning school procedure. Courses of this sort, however, are usually more or less general in character and seldom give the direct help in specific problems which many teachers require. In order to meet this situation in the vocational schools, the State Department of Public Instruction

has been offering courses in recent years based on specific teaching problems and responsibilities selected by the principals and the teachers of the various schools. During the current year two courses of this kind have been given by the Department on somewhat the same basis as courses in foreman training which have been developed in various industrial plants.

The first school to take advantage of this type of teacher training work was the Paterson Vocational School. With the cooperation of the Paterson Board of Education and the Superintendent of Schools, a course of this kind was conducted by the State Department of Public Instruction for the teachers in the Paterson Vocational School throughout the last week in July. The school was dismissed for this period and the teachers devoted full time to this work. The responsibilities and problems of the various departments were analyzed and chartered, and remedies and recommendations were worked out. A report of the meetings was published by the State Department and supplied to the teachers. In order to make certain that these conferences shall result in better teaching practices, a representative of the State Department has been meeting the teachers every month in a series of follow-up conferences. In reporting upon this work, the principal of the school writes: "It is difficult to imagine a program of teacher training which can offer greater assistance to teachers in making their work function efficiently."

Middlesex County Vocational School

An innovation in evening school instruction in the Middlesex County Vocational Schools was an experimental course in illumination recently offered in School No. 1, New Brunswick.

This course consisted of a short unit of five sessions, one each week. The work of preparing the outline, securing the services of the experts who handled the various topics and arrangements for securing all the necessary illustrative and demonstrative material was handled by the illuminating engineers of the Public Service Corporation without cost to the School.

The purpose of the course was to make it possible for consumers of electric energy for lighting purposes to get the maximum return for their investment and at the same time to safeguard the sight of those who work by artificial light.

The first session was in charge of Mr. A. B. Bell, Illuminating Engineer, Edison Lamp Works, Harrison, New Jersey. Mr. Bell explained and demonstrated the meaning of lighting terms such as candle power; foot candle; lumen; glare and diffusion. He also explained the method of rating lamps and discussed light measurement. He than proceeded to explain the importance of the consideration of all of these factors in making a complete lighting job.

The second session was in charge of Mr. W. A. Oglesby, Illuminating Engineer, Westinghouse Lamp Company, Bloomfield, New Jersey. Mr. Oglesby spoke on general lamp characteristics; importance of proper line voltage; reflecting equipment and why it is used and then discussed supplementary factors of importance such as color of walls and ceiling; maintenance and cleaning equipment and importance of having sufficient capacity for each circuit.

Mr. A. C. Genor, Lighting Representative of the Public Service Electric and Gas Company, who took charge of the third session discussed the importance of collecting essential information for making an intelligent layout. He considered the choosing of fixtures and the determination of the intensity of illumination to be obtained; determination of hanging height of fixtures; spacing of outlets and size of lamps to be used. This was followed by a demonstration of the flux of light method and watts per square foot method of calculating. The session was concluded by taking a typical lighting problem and solving it.

The fourth session was in charge of Mr. W. T. Blackwell, General Lighting Representative, Public Service Electric and Gas Company. Mr. Blackwell discussed the practical reasons for high standard of illumination. In his talk he covered such topics as increased production; decreased spoilage; safety; decreased labor turnover; improved sanitary conditions; attracting power of show windows and show cases and less eye strain and fatigue in industries and schools.

The concluding session was in charge of Mr. D. W. Atwater, of the Westinghouse Manufacturing Company, Bloomfield, New Jersey. Mr. Atwater's general topic was industrial lighting and general lighting practices. He demonstrated the use of photometers in connection with different kinds of industrial units.

All of the lectures were made extremely interesting and instructive by the generous use of slides, films and demonstration materials. The various types of units demonstrated were installed in the electrical shop and the windows were provided with curtains of various colors for the demonstration of reflection and absorption of light.

At each meeting, following the completion of the lecture and demonstration outlined, the members of the group were given an opportunity to ask questions and bring up topics for discussion. This phase of the work was taken advantage of by practically every man who attended and during these informal round tables many definite and practical problems were considered and solved.

This is the first time that a course of this type has been offered in New Jersey and it was extremely gratifying to find that the men who attended were truly representative of their various fields of electricity.

During the progress of the course, the men who were students in the regular evening classes in electricity were given an opportunity to receive double benefit as the instructor, Mr. William J. Murray, followed up in his regular class work, the points featured in these special sessions.

The average attendance at these meetings was forty men, all of whom were either illuminating engineers, industrial maintenance men, electrical contractors or journeymen electricians. The course was so enthusiastically received that arrangements are already under way to make a similar course during the night school term of 1928-1929.

Bordentown

Conference On Skilled Employment Among Negroes

More or less extensive and scientific surveys have been made by different social agencies to determine the opportunity which the negro of the north has to enter the various skilled trades, and the results of these surveys have had considerable publicity. Little has been heard of the less scientific, but none the less vital, reaction of the negro worker himself to the conditions which he meets in his search for employment, and which will decide the readiness of the average man or woman to seek work in the skilled trades.

It was in an effort to grasp this reaction and to get first hand information from the worker himself that Principal W. R. Valentine of the Bordentown Manual Training School invited a group of representative colored craftsmen to meet with him and with Mr. Wesley O'Leary, Assistant Commissioner of Education in charge of the Vocational Training of the State, at the school on Sunday afternoon, October 28, 1928. Mr. Valentine's letter calling the group together stated the conference aim as follows:

"To collect, assort, and tabulate facts regarding the skilled employment of negroes in New Jersey and its neighboring large cities. To correlate these facts with the vocational curriculum of the Bordentown School, and to determine whether or not the school is giving its graduates the type of training best calculated to fit them for skilled employment."

The first meeting of its kind in New Jersey, the conference brought together a type of colored citizen with which

the general public is not yet sufficiently familiar. Fourteen men, each one a creditable representative of the craft he followed, sat around a long table in the school library. Their conversation denoted more than average intelligence, and their general appearance more than average prosperity. At a conservative estimate their combined incomes would have totaled around seventy thousand dollars, and yet only one of these could be classed as belonging to the professional group. Seated thus together, they presented an excellent example of the opportunities offered the negro in the skilled trades as compared with the professions. Eight trades were represented, comprising a typical cross section of the negro's activity in New Jersey's field of skilled labor, and including agriculture, auto mechanics, bricklaying, carpentry, electricity, painting, plumbing and printing. Several members of the school staff also sat in at the conference.

Mr. Valentine opened the meeting without formality by stating why he considered the conference necessary. He said in part:

"The negro race as a whole has its eyes blinded by the dazzle of the professional career. The average bright, ambitious colored youth has but one aim, to go to college and enter one of the professions, such as medicine, teaching or the ministry. In fact, he can see no use at all in any kind of training, unless it be for one of these professions. . . .

"In choosing, therefore, to be either professional men and women or simply unskilled workers, the majority of colored people thereby tend to establish a peasant class of unskilled labor out of all proportion to the size of our population, and this will be our biggest handicap in our march toward economic and social freedom. We can never hope to advance as a group in American until we successfully invade the ranks of skilled labor, for the whole American economic society is founded on an industrial basis . . . . The negro youth must be shown the advantages offered to the average young man or woman in the skilled trades where he might find employment rather than in some profession for which he may be entirely unfitted. The Bordentown School is operated primarily for the teaching of skilled trades, and it should therefore take a leading part in bringing that information to the public."

Interesting, and sometimes surprising facts were brought out in the spirited discussion that followed. Friendly union relations between white and colored workers in the building trades of North Jersey were disclosed, as evidenced by the fact that approximately five hundred colored men are members of the bricklayers', masons' and plasterers' locals of Newark and the Oranges. A negro electrician was found to have the largest electrical contracting business in the Asbury Park district. Practically all the sand used in Mooretown's building operations is furnished by a colored farmer. One of Montclair's leading home construction firms is headed by a negro who offers white employers a splendid example by hiring workers of both races. On the other hand, throughout the discussion constant reference was made to the half-trained or untrained negro workman who turns in poor performances on jobs assigned to him, and who thereby hurts the reputation of the real negro craftsman. As one man bluntly phrased it, "If we could only run these jack-legs out of our trade, an honest man would have a better chance of getting a job."

Racial restrictions were found to exist more widely in the plumbing, printing and electrical trades, but even here lucrative returns await the skilled worker who succeeds in breaking through his barriers. For the average man, however, the confernece listed the trades in order of desirability as regards chances of employment as follows: bricklaying, cement work and plastering; carpentry; agriculture; auto mechanics; painting; printing; electricity and plumbing. Two striking features of the afternoon's discussion were the spirit of broad tolerance shown by those present on the subject of racial restrictions, and the hopeful attitude regarding the future of the negro in New Jersey's field of skilled labor. Several dicta were laid down as the findings of the conference on which practically every one was agreed, and they are summed up below.

1. In the large cities, masons' and carpenters' trades offer the negro the best chance of skilled work, North Jersey being the best field.

2. Auto mechanics and interior renovating, (painting and paper-hanging) are profitable trades in all sections of the state and in small communities as well as large cities.

3. Restrictions on account of race are practically non-existent in agriculture.

4. The negro's best chances of employment seem to be in those trades where men can work singly or in small groups, rather than in large numbers.

5. A reputation for efficiency will go far toward removing the obstacles that bar the negro craftsman from skilled work in New Jersey. The efficient workman represents a money profit to his employer. Few employers are so prejudiced as to refuse a demonstrated profit, simply because the workman who offers it happens to be a negro.

Essex County Vocational Schools

On October first the Essex County Vocational Schools opened a part-time apprenticeship course, for masons' and plasterers' apprentices, in cooperation with the General Contractors' Association of Newark and vicinity and the Executive Committee of Locals number 3, 5, 11, 16, and 20, New Jersey, of the Bricklayers', Masons', and Plasterers' International Union of America. These two trade organizations cover all of Essex County, and all apprentices working in Essex County will be required to attend the classes one half a day each week. The movement was inaugurated by the Executive Committee of the Union. After working out a tentative program with the Essex County Vocational Schools the matter was placed before the General Contractors' Association so that the final arrangements are in the form of a general agreement between the contractors, the union, and the vocational schools.

There are about two hundred apprentices involved, nearly equally divided between bricklaying and plastering. In the large cities, such as Newark, an apprentice generally specializes in either bricklaying or plastering, but in the smaller towns in the county he frequently works in both trades. The work in the school will be adapted in each case to meet the needs of the individual apprentice.

The course of study has been developed by analyzing the trade, and the aim of the school will be to teach those things which a survey of trade conditions shows the apprentice can not get on the job. Under modern production conditions it frequently happens that an apprentice may serve his full time without having the opportunity to work on many types of construction. Therefore, the school finds it necessary to give not only technical instruction but also training in trade practices.

Evening school classes for bricklayers' and plasterers' apprentices have been conducted in the Essex County Vocational Schools for a number of years and the union has required its apprentices to attend. It was felt, however, that compulsory training required of apprentices should be a part of their regular working day. The attendance in the evening classes was good but it was found that boys could not study, after a full day's work at hard labor, as intensely as they should.

One unique feature of this program is the requirement that the apprentices shall not be paid for the time that they attend the school but that they shall be required to attend school during the working day. This arrangement was made at the suggestion of the union which expressed the feeling that the apprentice was receiving a good wage so that he could afford to pay for

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AGRICULTURAL EDUCATION

Future Farmers of America

H. O. SAMPSON, *Chairman of F. F. A. Publicity Committee*

As most of you know, the Future Farmers of America, the nation-wide organization of boys studying vocational agriculture in our schools, was started on its way at a meeting held in connection with the American Royal Live Stock Show at Kansas City, Missouri, last fall. We are glad to report at this time that the F. F. A. is a going concern. To date thirteen states and one territory have been granted charters. They are: Virginia, Arkansas, New Jersey, California, South Carolina, Nebraska, Oklahoma, Wyoming, Maryland, Georgia, Nevada, West Virginia, Ohio and Hawaii. By the time of the second annual meeting of the organization, which is to be held at Kansas City on November 18, 19 and 20, it is fully expected that at least forty states will have been granted charters. According to the Constitution and By-Laws, delegates from local chapters must meet in state convention, organize, adopt a state constitution, elect officers, set up a program of work, and then apply to the National Executive Secretary for membership in the national organization. Since most of the states will hold their conventions this summer it is easy to see why more of the states are not at present in the national organization.

The purposes of the Future Farmers of America are "to promote vocational education in agriculture in the public schools of the United States, to create and nurture a love of country life, to encourage recreational and educational activities for students of vocational agriculture, to promote thrift, to encourage cooperative effort among students of vocational agriculture, to strengthen the confidence of the farm boy in himself and his work, to promote scholarship among students of vocational agriculture, and to develop rural leadership."

The organization stands for achievement. The boys advance through a series of so-called degrees or grades of membership as they achieve certain standards. The first is the "Green Hand" degree, the second, the "Future Farmer" degree, the third, the "State Farmer" degree, and the fourth is known as the "American Farmer" degree. To reach this degree is the aim of all members of the organization, but not a large number will achieve it for a state may submit each year only one candidate for each 1000 members or fraction thereof. The American Farmer degree is awarded at the annual meeting. Last year the following boys were so honored: Elsnier Beall, Wilson, Arkansas; Arthur Ketterlin, Santa Rosa, California; Carrol Baker, Twin Falls, Idaho; Leslie Applegate, Freehold, New Jersey; Lawrence Augenstine, Ashley, Ohio; Theodore Westerling, Spanish Fork, Utah; Ollie Duroy, Ponca City, Oklahoma; Guy Whitestone, Perry, South Carolina; Norman Larson, Park River, North Dakota; Joseph Beard, Herndon, Va.

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FUTURE FARMERS *of* AMERICA
1928-1929

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Dr. C. H. Lane, Federal Board for Vocational Education, Washington, D. C.

LESLIE APPLEGATE
President of F. F. A., Freehold, N. J.

Reports from states that have affiliated with the organization indicate that the F. F. A. is worthy of our best efforts. The boys like it and are taking a greater interest in their agricultural work as a result. This has been true in New Jersey where I have carefully watched the effect on the boys since we became affiliated last November.

The organization means better leadership among our vocational boys. Here is what Edwin I. Cissell, the president of the Maryland Chapter, told the boys in his state recently: "It (the F. F. A.) is to create more interest in and love for country life. It is to raise the standards of living and leadership . . . through the rural communities. Personally, I think this organization is going to be one of the greatest and most beneficial in building up a better rural life. It will aid us in our project work and give us a better understanding of the higher values of agriculture."

The name is a good trade mark for vocational agriculture instruction and brings our work before the public in an effective manner. The farm press and other papers are ready to give us space to tell about the accomplishments of the boys and this means, of course, that the public is becoming better informed concerning the importance of vocational education in agriculture.

The Farm Journal and the Kansas City Weekly Star are offering prizes to encourage the work. The Journal prizes are $500 to the best chapter, $300 to the second best and $200 to the third. The score card to be used in selecting the chapters include the items, supervised practice, cooperative activities, community service, leadership activities, earnings and savings, conduct of meetings, scholarship, and recreation. The Star prizes go to the boys direct. A thousand dollars is to be given to the most outstanding "American Farmer" selected at the Kansas City meeting—that is the boy who presents the highest credentials of achievement. This is open to boys from all parts of the country. Additional one hundred dollar prizes will be given by this paper.

Newlin at the Bat

J. A. LINKE
Agricultural Agent, Federal Board for Vocational Education

This is not a story of "Casey at the Bat", but of Walter A. Newlin of Casey, Illinois at the bat. It has been a great game in Vocational Agriculture that Newlin has played at Casey. He has had his innings and everytime he comes to bat, he makes a hit or a home run. A big upstanding six footer, quiet and unassuming, but with a square jaw that denotes determination, Walter Newlin was graduated from the University of Illinois in 1918. After six months in the army and one year and six months on the home farm, he went to Casey as teacher of Vocational Agriculture in July 1920 and during the nine years he has been on the job, things have happened in an Agricultural way. His innings at the bat may be noted in the following happenings:

Seedhouse built by Mr. Newlin and his boys.

HE HAD A PROGRAM OF WORK

Mr. Newlin was a native of the adjoining county and knew that part of the State and its needs. When he went on the job at Casey, he studied the needs of the community and built his plans of procedure on those needs. He realized the value of a definite program of work along lines that would get results on the farms of his boys as a means of convincing the farmers that there was really a way out to better agriculture in the community. So he set up some definite plans of procedure and began work on these plans with his pupils. His program of work was developed and carried out as follows:

HE TESTED THE SOIL

Knowing that the soil was very low in fertility from the crop yields, he began testing soils with his class. They tested the soils on all the farms of the boys in his classes and found that the first thing needed was about four tons of lime per acre to correct the acidity. This work with what followed convinced the farmers that there was something wrong with their soil and as a result Mr. Newlin and his agricultural boys have tested the soil on over 200 farms in the community and suggested corrective methods.

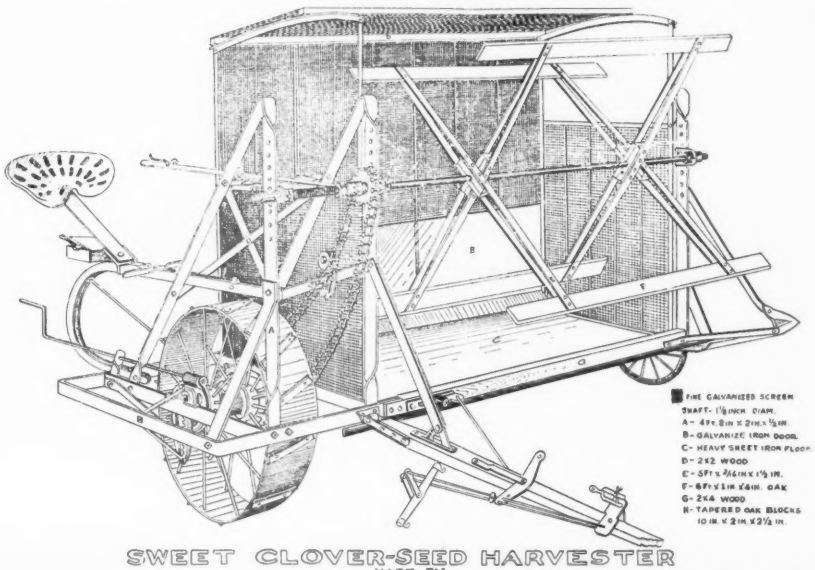
THEY APPLIED LIMESTONE

He convinced his boys that the soils on their farms needed lime and by interesting limestone and railroad companies in his program, seven carloads of limestone were shipped in to be distributed among the boys of his class and their dads. Each boy was given six tons to be used according to plans worked out by the class. The results were so convincing that the limestone business grew in that community until in 1926, there were as high as seventy-five carloads of limestone shipped in by the farmers. In 1927, Mr. Newlin persuaded the Rotary Club at Casey to organize a limestone company consisting of farmers and business men, and a quarry was opened up in the community. During 1928 over 5000 tons were hauled from this quarry by trucks and wagons and over 10,000 tons will go out in 1929. By the organization of this company, the farmers are saved over fifty cents per ton on their limestone and the company will pay dividends this year.

THEY GREW SOYBEANS

Mr. Newlin's program included soybeans and sweet clover in connection with limestone. The agriculture boys in the High School in 1920 formed a soybean club and introduced the growing of soybeans in the community by buying seed and growing soybeans on the 2 acre school plot. The seed grown from this plot was distributed among the boys of the agricultural class and prizes were offered to the boys who could grow the greatest number of bushels from one bushel of seed. The three highest productions were fifty, forty-seven and forty-two bushels respectively. In most cases the seed was sold to farmers and the production of soybeans increased in the community until in 1923, Clark county was second in the State in soybean production, over 2500 acres being in the Casey community.

Continued on Page 15


FINE GALVANIZED SCREEN
SHAFT- 1⅛ INCH DIAM.
A- 4FT. 8IN. × 2IN. × ½IN.
B- GALVANIZE IRON DOOR.
C- HEAVY SHEET IRON FLOOR
D- 2X2 WOOD
E- 5FT. × ¾IN. × 1½ IN.
F- 6FT. × 1IN. × ¼IN. OAK
G- 2X4 WOOD
H- TAPERED OAK BLOCKS
10 IN. × 2 IN. × 2½ IN.

SWEET CLOVER-SEED HARVESTER
MADE BY
WALTER A. NEWLIN

Drawing by L.D.Hight

The Use of Farm Magazines in the Teaching of Vocational Agriculture

By PAUL W. CHAPMAN
State Director of Vocational Education
Athens, Georgia

In Georgia, as in the other states of the nation, practically all of our departments of vocational agriculture are located in rural consolidated schools in the open country or in county high schools in small towns.

We have one department, however, in a large city. Here, in what is one of the best secondary schools in the state, all the high school boys of the county are assembled. So varied are the activities of this great educational institution that on each of my visits to this school I observe many things of unusual interest.

One day while waiting in the office for the time when I might see the agricultural instructor, the postman assisted by the janitor came in with two well-filled mail sacks. Such an immence amount of mail attracted my attention.

"You get more mail than a movie star," I observed to the Principal.

"Those," he explained, "are the magazines that we will use this week in our history and English classes."

As I looked at those mail sacks this is the thought that occurred to me: If teachers of history and English find it necessary to use current periodicals in their classes in order that they may keep abreast of the times how much more important it is that teachers of vocational agriculture should develop a systematic plan for using, as instructional material in their classes, the farm magazines that deal with the enterprises and phases of farming in which their pupils are engaged.

If our boys could carry away from our classes, either in their heads or their notebooks, all the data which we discuss (and we know they can't do this) most of this information would soon be lost—so far as they are concerned. Notebooks get misplaced and destroyed and information not used daily is soon forgotten.

Here, however, is a thought of even greater importance: If, in our Smith-Hughes classes, we could present to our boys all the facts available today about the business of farming (and this is obviously impossible), ten years from now much of this information would be obsolete.

FIXING DESIRABLE HABITS

The more thought and study we give to the matter the sooner we reach the conclusion that the most valuable and worth while thing we can do for our students is to help them form habits which will function in keeping their feet in the right pathway after they have left our classrooms, laboratories, and shops.

All the findings of modern psychologists have simply confirmed the truth of the exclamation of the Duke of Wellington when he said, "Habit—a second nature! Habit is ten times nature."

The force of habit is well illustrated in the following story, told first by Huxley and later repeated by William James. A practical joker, seeing a discharged veteran carrying home his dinner, suddenly called out, "Attention!" whereupon the man instantly brought his hands down, and lost his mutton and potatoes in the gutter.

Angelo Patri, one of America's best teachers, says that the primary aim of teaching should be to help develop in a child a useful set of habits.

Teachers of vocational agriculture appreciate the importance of habit formation. In fact, they are leaders, among the teachers of the nation, in using methods designed to fix desirable habits.

But is there any habit more important than that of reading the "literature" pertaining to one's job?

READING TO SOLVE PROBLEMS

Let me illustrate how important this is in terms of the teaching methods that we are using. We teach farm jobs. Under each job one or more decisions must be made. These include the managerial aspects of farming. To make intelligent decisions ALL THE FACTORS must be clearly understood. This method will apply to the solution of any problem (at any time in the life of the student) but the important thing is to always have all the facts. There may be several ways of acquiring facts, but among these reading is not the least.

How can we interest our boys in reading? Of course we have no difficulty with many of them, but it is also true that a large number of our boys have never enjoyed reading.

Our agricultural literature may be divided into the following three groups: (1) books, (2) bulletins, and, (3) periodicals. Each meets a distinct need. All are essential. But unfortunately because many boys have associated books with school they have acquired little interest in them. The taste may be cultivated. One teacher, for example, began a systematic attempt of this sort by developing a circulating library that included such books as that delightful story by John F. Case, "*Tom of Peace Valley*." Bulletins, while of the greatest scientific value are, generally speaking, uninteresting. I can not help but agree with the editor of *The Prairie Farmer* when he says that few people will sit up nights to discover how the experiments turn out. Bulletins, for this reason, are read with interest only by those persons who have developed a thirst or passion for knowledge. Farm papers, on the other hand, are interesting. They are personal. They carry a human interest appeal. They are up-to-date. Boys like to read them.

How then, may farm papers be used most effectively as instruction material in Smith-Hughes classes?

MAKE MAGAZINES AVAILABLE

Before they can be used they must be available. I have visited, during the past ten years, two or three hundred departments of vocational agriculture. In some of them I have seen few, if any, farm papers. In others I have found a limited number in the school library. In many schools magazine racks are found in the classrooms with single copies of various farm papers available for the use of the members of classes. This is fine. I always like to see such magazine racks. To my mind, however, the most satisfactory way of interesting boys in reading agricultural periodicals is to select one or more papers for special study and subscribe for a sufficient number to be mailed to the school so that every boy may have a personal copy for his own use. Most of the farm papers will gladly cooperate with schools desiring to follow this plan by making special rates to clubs of ten or more. Definite periods for reading and discussing these papers should be set aside in the teaching schedule. Each boy should be asked to give special attention to the articles dealing with the enterprises in which he is conducting home projects. In many schools teachers have developed some plan so that such articles may be filed for future reference.

A number of the leading farm papers of the country have developed some service feature which makes their publications of special interest to students in vocational agricultural classes. For example:

A VOCATIONAL DEPARTMENT

Several years ago *The Progressive Farmer*, Birmingham, Alabama, started "Vocational Departments" in each of their four editions. An editor was appointed for each of these editions, whose duty it was to collect news of vocational agriculture from the states served by each edition. These departments have proved eminently satisfactory to the publishers of *The Progressive Farmer* and have been greatly appreciated by the teachers of vocational agriculture and their boys. I have before me at this time a letter written by E. C. Young, Elberton, Georgia's Master Teacher, to Eugene Butler, one of the editors, in which he says, "A report on the contents of the vocational page was given in our class each time it appeared. The boys were very

much interested in this page and were constantly reminding me of what they had seen in the paper about what other boys were doing."

AN EXPLANATORY CROSS INDEX

This year for the first time *The Southern Agriculturist*, Nashville, Tennessee, has inaugurated a special service for vocational schools. This service consists of a special explanatory cross index on mimeograph paper, sent under separate cover to the teachers of vocational agriculture who use this journal in their classes. This index classifies the contents of each issue of the magazine. It gives the title of each article, the author, if recognized as an authority, together with a statement of where he works and other biographical information that may prove interesting, the length of the article, the nature of the article, and occasionally a teaching suggestion. A summary of these indexes is made every six months, so that in a few moments a busy teacher or pupil can find exactly what information, on any subject, has appeared in *The Southern Agriculturist*. Cardboard covers are furnished for both magazines and the indexes so that they may be filed quickly and are readily available. This service is a great help to the teachers of vocational agriculture who use this periodical in their classes.

Teachers who have used the farm papers as outlined have found that they added greatly to the interest the boys manifested in their work. They have found that the boys soon come to feel something of the same enthusiasm for these publications that Ruskin expresses for books in his great lecture "*Sesame*"; and furthermore they believe that the habit, in four years, will become so fixed that the "Future Farmers of America" will continue to read and study the problems of agriculture after they leave the classroom.

NO RUSTY BRAINS

Dr. Glenn Frank, President of the University of Wisconsin, very ably expressed this ideal of ours when he said, "Even though a man have as many degrees as a thermometer; even though he be graduated with the highest of honors; he will soon be grossly educated if he halts his reading and learning with his graduation. Authentic education matriculates us at the cradle and graduates us at the grave. The best thing that the school can do for the student is to awaken in him a zest for thinking and the habit of reading. He should not let his brain get rusty after graduation." To the end that such an attitude toward reading may be developed in all students in Smith-Hughes agricultural classes this appeal is made to all teachers of vocational agriculture for a more universal and systematic use of agricultural periodicals.

The Unit Course School in Agriculture

By VERD PETERSON

State Supervisor of Agricultural Education for South Carolina

A LARGE percentage of the farm boys in this country still live in the wide open country, where in many cases, fully developed rural high schools have not been organized on a large enough basis to make it convenient to have departments of vocational agriculture in them. Hence, the need for some type of agricultural instruction other than the regular all-day school with classes meeting 90 minutes or more per day each day in the week.

Some of the objectives recognized for vocational training are that the training must be carried on in the same way as the occupation is and that the training must be given as nearly as possible at the time and place where it is to be applied or used. Farm boys living in rural communities that are somewhat isolated and where there are not very complete high schools developed meet these above objectives readily.

In many of the Southern States, especially in 1917 when the Federal Law came into operation, probably 50% of the boys who lived on the farms could not be accommodated in first class high schools where completely organized work in agriculture could be carried on. This same condition still exists in a large percentage of the colored schools throughout the south.

In these communities, mentioned above, it was necessary to develop some type of organized class in vocational agriculture that could be used to reach these boys living on the farms. A good many different approaches have been made to solve this problem. All of them organized comparatively small groups of boys and met one or more times per week to study some limited phase of vocational agriculture or farming.

In the year 1914, in Darlington County, South Carolina, a man was employed to teach agriculture to groups of boys and girls in the rural schools of that county on what was known as the itinerant plan. Classes were held usually twice per week with some attention given to the practical phase of the work. In 1917 when the first State Law for teaching agriculture went into operation in South Carolina, there was organized 13 groups of this itenerant work with an average of four schools per teacher or group. About this time Pennsylvania and some other States organized somewhat similar plans of carrying on agricultural instruction.

In the report of the Federal Board for Vocational Education in 1924, the term "Unit Course" for farm boys is used. The report states that in some schools the small enrollment of farm boys, or the inability of the school to maintain a regular agricultural department, has resulted in the adoption of a plan whereby one teacher may conduct a unit course class in each of the several neighboring schools. It also says that this work differs from all-day work mainly in the scope of work only.

The statistical section of this report shows that 9 different states were doing unit course work in agriculture in 1924 with 118 different teachers in the different States carrying on the work. The total enrollment in these schools for that year was 3,256 pupils. Some of the States leading in the work at that time were Arkansas, North Carolina, Pennsylvania, South Carolina and Virginia.

In Pennsylvania, a county itinerant teacher or supervisor of agriculture is employed as a member of the staff of the County Superintendent of Education. His salary and travel expenses are paid from the State and Federal funds, the county providing him with office, stationery, stamps and stenographic services. This man gives instruction in approximately six high schools of the county on the unit basis, meeting his classes usually one 90-minute period per week and carrying on regular supervised practice work with the pupils enrolled in these classes. The man is employed for 12 months in the year and devotes his summers to the carrying out of the supervised practice.

Sometimes the boys in any one of these classes may come from all of the grades in these schools. In other cases in larger schools, the entire class may come from one grade. The instruction in these classes varies from the all-day work in that little or no shop work is done and the subject matter taught in agriculture is somewhat more limited. The amount of time the instructor gives to laboratory practice is brief, and he aims to cover the maximum amount of material in the allotted time. In 1927 the Federal Board report shows that Pennsylvania had ten such teachers with an enrollment of 1160 pupils. This information on the work in Pennsylvania is taken from the Federal Board Reports, Bulletin No. 3 of the State Department of Education and a descriptive letter from Mr. J. S. Champion, State Supervisor of Agricultural Education in Pennsylvania.

Professor E. D. Stivers of the University of Tennessee has made a study of unit course work carried on in Campbell and Hamblin Counties of Tennessee. A total of 18 schools in these two counties were studied by Prof. Stivers. The teachers and pupils enrolled in these classes were interviewed by Prof. Stivers.

A total of 230 pupils studied agriculture in these schools. In four of the schools, girls were admitted to the classes with a total enrollment of only 25 girls in all schools. Of the 230 pupils enrolled, 173 of them started projects and 128 completed these projects. Twelve of the girls started projects and nine of them completed them.

Each pupil was asked the question "If you had the opportunity would you like to take agriculture again next year?" This question was asked to determine the attitude of the pupil toward the work. 133 of the 230 pupils expressed the desire to continue the study of agriculture.

In 14 schools the course in agriculture given was general, covering a number of enterprises. An Elementary Agricultural text was used as the basis for the course. The teachers, however, emphasized the project work and encouraged the pupils to carry it on.

In four schools taught by the same teacher, the question of the selection of projects was one of the first problems taken up by the class. The boys, with the aid of the teacher, decided on the projects and the instruction dealt entirely with the enterprises in which the projects were taken. In no case did any one school or class deal with more than three enterprises. In these four schools there was a total enrollment of 64 pupils. 54 of this 64 (or 84%) completed projects. In the remaining 14 schools, where the general work was done were 166 pupils with only 74, or 44% completing projects. This result, of course, points out the effectiveness of organizing the instruction around the projects.

In most cases these classes met one day per week for 60 minutes. There was one exception where the teacher met the class five times per week, giving a rather general course in agriculture. In this class there were 9 boys, 8 started projects, and 5 completed them. (When asked as to whether they planned to continue agriculture for the next year, all 9 boys stated that they did not wish to study agriculture again.) The teachers who are to continue this unit course work in these two countries for this year have decided to make the projects the basis for their instruction. Although there is a change in the personnel of the teachers, most of the work is being continued for this current year.

The report of the Federal Board for 1927 shows the State of Tennessee had 833 pupils enrolled in day unit schools in that year.

For the year 1927 South Carolina had 17 teachers doing day unit work with an enrollment of 321 pupils in day unit classes. In 1924 there were only three teachers doing day unit work with 124 pupils enrolled in these classes, while in 1918 there were 15 teachers doing day unit work with a total enrollment of 500 pupils. The growth of high schools for white boys in South Carolina has modified from year to year very much the scope and nature of day unit work since many of the schools originally organized as day unit schools have been made consolidated high schools and all-day work in agriculture organized in them. In 1916-17 there were only 10,847 pupils enrolled in all of the white high schools of South Carolina. In 1926-27 there were 33,516 pupils enrolled in these schools. At least 90% of this increased enrollment came from the rural sections of the State. Hence, the new type of rural high school being developed in South Carolina has relieved the need for day unit work in many localities.

The rapid development of graded schools for negroes in the rural sections, however, is developing a fertile field for day unit work among negroes.

In the white high schools a new type of day unit work is being developed with boys who have had all-day work through the 8th and 9th grades in high school, and who wish to continue the study of agriculture but find themselves crowded with other work. We find the numbers in these different grades who are interested in agriculture so small that it may not justify an all-day class. Several day unit classes of this kind are being developed on specific enterprises such as truck crops, poultry, or cotton growing.

The report of the Federal Board for Vocational Education for 1927 shows a gradual increase in the day unit school from 1923, when there were less than 2,000 students in day unit schools in the whole United States, while in 1927 there were 5,718 students reported in day unit schools. The growth of the day unit school in this country, and the fact that there are still thousands of farm boys who may not be accommodated by all-day departments indicate the probable future growth of the day unit school to give training to the boys who are living on farms in more or less isolated sections who might not otherwise have the opportunity to secure this training.

The effectiveness of the day unit work might be considerably improved if attention would be given to the following points: 1. There should be a definite understanding as to the difference between the day unit school and the part-time school. In some of the material secured for preparing this paper it was evident that it is not entirely clear to all agricultural workers as to what this difference is. 2. A clear-cut method of procedure which involves in any one class a group of students who have the opportunity to carry supervised practice work in one or more enterprises, usually not more than three, would save much waste in instruction. 3. The development of experimental data and descriptive material necessary for the effective teaching of improved practices on the enterprises used in the course of study. 4. More careful thought given to the organization and the development of the supervised practice as a basis for all instruction, having in mind in all cases that any student enrolled in day unit work is a full-fledged agricultural student and that day unit work is no more intended for a try out course than all-day work.

Newlin at the Bat

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AND SWEET CLOVER TOO

In 1921, Mr. Newlin started one boy with a three acre project of sweet clover. In 1922 ten boys had 100 acres, in 1923 fifteen boys had 250 acres, and in 1924 twenty-five boys had 500 acres. It spread to the farms of the community until in 1927 over 2500 acres were in sweet clover. One of the happy faculties of Mr. Newlin was his ability to group his boys into working organizations. In connection with the sweet clover project, Mr. Newlin invented a sweet clover harvester which was built by his boys in the school shop. The boys' organization then contracted with the farmers to harvest their sweet clover seed and prepare it for market for one half of the seed. The first year they cleared $500.00, $1000.00 the second year and $2000.00 the third year. After that the farmers made their own harvesters but the boys had a neat sum of money in their treasury as a result of their work. Articles about this harvester were published in twelve different farm papers and Mr. Newlin has received inquiries about the harvester from over 500 farmers in twenty different states and Canada.

In connection with the soybean and sweet clover projects, Mr. Newlin and his boys have built a seedhouse on the school grounds where seed is cleaned and made ready for market. In 1926 they hulled and scarified over 1200 bushels of *sweet clover* alone. From this project, seed has been sold to adjoining counties and states which shows how the produce from a single project started by the boy and his teacher may spread and become a benefactor to the entire community and county.

HOW OTHER CROPS WERE HELPED

The results of Mr. Newlin's soil building campaign may be noted in the following demonstrations:

On the farm of John Gosser in the same field during the same year on one plot where no lime and no sweet clover were used, wheat yielded twelve bushels

and on another plot where lime was used and sweet clover turned under, wheat yielded twenty-seven bushels per acre.

On the farm of Walter Brown under similar conditions to the above the oats yield was thirty-five and sixty-five bushels respectively. The increase in the corn yield was from ten to twenty bushels per acre.

SWINE WERE ADDED

The vocational boys in the High School having been prosperous in the seed business decided to introduce better swine into the Casey community. In the fall of 1926, they used $1000.00 to purchase twenty-four purebred Duroc and Poland China gilts. They distributed these gilts to the boys in the community on the basis that from each litter they would receive two of the offspring which in turn would be distributed on the same plan to other boys. This proved to be a valuable undertaking to the boys and was the means of introducing better hogs in the community.

EVENING CLASSES

Mr. Newlin's work has been so effective at Casey that the farmers themselves became interested in returning to school for a study of their problems. In 1925 some thirty-five farmers attended the evening school. This work has grown until over fifty farmers attended these classes in 1929. It is through his work with the mature farmers that many things for better Agriculture have been sponsored in the community.

AND NOW COMES THE DAIRY

Being a member of the Rotary Club and having developed a strong evening class, in addition to his regular work in the High School, Mr. Newlin was able to promote better dairy cattle in the community. In the spring of 1927 a carload of the best dairy cattle was brought to Casey from Wisconsin and since this time the work has been promoted in all day and evening classes. Some of the results can be measured by the amount of milk sold. In 1927 the sale of milk in the community amounted to 1000 pounds daily. In 1928 it amounted to 7500 pounds and in 1929 it has been 15,000 pounds daily. This work which is in its infancy promises in the near future to develop into one of the big industries at Casey. This is one of Newlin's home runs. From his sincereity of purpose and spirit of service, Newlin has become an outstanding leader among farmers and business men in his community. The Rotarians made him president of their club this year and sent him to Dallas, Texas to their National meeting.

WHAT PEOPLE SAY

The organization of the Vocational Agriculture boys in the High School for profits and service to the community under the leadership of Mr. Newlin has been so successful that the President of the Board of Education said that they would rather lend money to his group of boys than any other organization in the community because they were safe in their business methods and sure pay.

You have heard of fabulous prices being paid for baseball players. One of the progressive farmers near Casey realizing the value of Mr. Newlin to that community said, "He is worth over $100,000.00 to our community", and we are wondering if this cannot be true in Vocational Agriculture just as well as in baseball.

House built by the high school vocational carpentry classes, Reno, Nevada.

There are two classes of ten students each. One class has the practical work during the morning sessions and the other class has the afternoons.

News Notes Continued

Continued from Page 10

the time required for instruction that would make of him a thoroughly competent workman.

The bricklayers' union has for years been one of the most progressive trade organizations in Essex County in educational matters. They have cooperated in every way with the vocational schools. They recognize the value of thoroughly trained men to their trade and this latest step into the part-time day training field shows that they are determined to have the most efficient type of training that can be secured.

The following extract is from the apprenticeship agreement between the General Contractors' Association of Newark and Vicinity and the Executive Committee of Locals number 3, 5, 11, 16 and 20, New Jersey, of the Bricklayers', Masons' and Plasterers' International Union of America:

School Attendance:

"All apprentices shall be required to attend the Essex County Vocational School System of New Jersey one half day in each week, (or its equal in time) at the apprentice's own expense. The allotted period of time to each apprentice attending school shall be determined by the Essex County Vocational School Authorities, and for the length of the school year of said school system.

Improper School Attendance:

"Evidence of improper school attendance shall be submitted by the Essex County Vocational School to the apprentice committees of the General Contractors and the Executive Committee.

Enforcement of School Attendance:

By Employer—

"The employer may discontinue the employment of any apprentice who does not fulfill his obligation in so far as school attendance is concerned, after a review has been made by the apprentice committees for the General Contractors and then only at its recommendation.

By the Union—

"The apprentice committee of the Executive Board shall exclude from membership in its organization any apprentice who does not fulfill his obligation in so far as school attendance is concerned, after a review of the evidence furnished to the apprentice committee.

STOP!

If you like these News Notes send in some for the next issue.

HOME ECONOMICS EDUCATION

Vocational Education In Home Economics

MARY BEEMAN, *Head, Home Economics Department, Ball State Teachers' College, Muncie, Indiana*

Vocational Education came late into our school but in true American fashion it spread like wild-fire over the country until today no school is considered standard that does not offer some forms of vocational training.

Training for certain vocations such as law, medicine, and art were long recognized a legitimate part of the public school program. These vocations were dignified by the name "professions". Education in these subjects meant class education, for only a limited number of the well-to-do could take advantage of the offering. The primary objective of this group all through the elementary and secondary schools was preparation for college.

In a democracy a system of education to be justified must be made for "all the children of all the people." If the individual is the product of society, then to quote from Professor George S. Counts, "The curriculum should be determined in a large measure by the nature of the society into which the child is born and in which he will presumably live." The demands of society are insistent and they must be satisfied. In the last decade Vocational Education has attempted to satisfy the needs of a large group of people for education of less than college grade, but of such character as to prepare for a vocation.

Homemaking is the greatest of professions or vocations, using these terms synonomously. Training for homemaking is, in the minds of a vast multitude of people, including school administrators, trade training. There is no intention to minimize the value of trade training for certain groups but home making as a vocation differs from a trade in the extent and character of the knowledge required and the ideals and objectives which it sets up. A girl may under direct supervision learn to perform certain tasks and be required to attain certain standards of efficiency without much knowledge of the reasons why or the underlying principles involved. As a result we have groups of trades women—cooks, milliners, dressmakers—who have reached a degree of efficiency in the performance of these skills that yield them financial returns. But the woman who knows what she does and why she does it, who can distinguish between the ideals of homemaking and the skills necessary to "keep house" and who considers her work not alone in the interests of her own family but as contributing to the welfare of society, such a woman is practicing the vocation of Homemaking in the true sense of the word.

Homemaking reaches or affects a greater number of people than any of the other vocations for everyone lives in a home. Whether it be in a single room, an apartment, a detached house, or a club it is a place he calls home. It may not be advisable for all to learn the skills but everyone, man and woman, must select a home, if it be no more than one room, purchase food and clothing and learn to live with others.

Homemaking contributes more to the seven cardinal principles of education than any subject in the curriculum according to the decision of a class of fifty or sixty educators, chiefly school administrators, in a college class in curriculum construction. The problem was to score each subject in the high school curriculum on a prescribed scale for its contributions to each of the seven cardinal principals. It was very significant that when the scores were reported, without exception, Home Economics stood at the head of the list.

Since the per cent of girls who will marry and go into homes of their own is very high, and home making is justified as a subject in our school curriculum on the basis of its contributions to education it is extremely difficult to find arguments for that group who so frequently say, "Vocational Home Economics is only intended for a small group." Even some of our leaders take this attitude. The law fixes the age at 14 years on the lower level but there is no limit on the upper level but it does say that such education is intended for those who can profit by it.

The curriculum for Homemaking must be vital, ever changing and based upon the needs and interests of the pupils, whether they be elementary and secondary school pupils, or adults. Our teaching must keep abreast with the changes in our homes and the problems and activities be drawn from life situations. To teach problems means to teach pupils, not subject matter. There is little need to worry about the repetition in our teaching if we adjust the things taught to the age-grade level of the learner. Our teaching should prepare for living in homes today, should inspire further study and help the individual to adjust to life now and later he can take his place with ease in our complex social life.

The home project is a means, when properly used, for getting near life situations. It should be the result of a recognized need and not done simply to satisfy a school requirement. Home projects should supplement school teaching and practices and include vastly more than a few activities such as canning, baking and sewing. Projects should be distributed over the entire home making program of the pupil both as to time and kind. This form of training is not suited to segregation in a few weeks or months but should be used whenever the need arises and where home practices can make available experiences and resources the school does not supply in a degree for the learner to acquire proficiency.

Problems in management, in child development, in family and social relations and in house furnishing and decoration are most important among those in which the home offers the best opportunities for the application of principles and technique in the doing. Both teacher and pupil objective in the doing of home projects frequently need clarification. Are they done for the sake of production—that those responsible may be able to say that so many pupils did so many projects and the results were so much in material gain? Or are they organized with the view of developing pupil initiative in judgment, the acquisition of some skills, and the results such as can be evaluated in terms of better home and community conditions?

Vocational homemaking will live and develop in the future in proportion to our ability to adjust it to changing home, social and school conditions. It has too long been considered a

"special" subject for "special groups" taught by "special" teachers. It is a major subject taught by a regular teacher who is on the same basis as her co-workers. What shall be taught can best be determined by a scientific study of the home and community life and these are constantly changing which means the curriculum should be the result of evolution and not revolution. Schools must give it a fair show in the curriculum, employ teachers properly fitted for their jobs, support it with adequate time, equipment and money and it will attract pupils of the finest mental acumen.

The program of homemaking for adults has very largely in the past attracted those who conceive their job as one primarily of feeding and clothing the family. Their objective was to learn how to make more clothes and prepare new dishes. Worthy as these goals are the emphasis is changing. Now the homemaker is seeking help in the care and training of her children, the management of her time and energy, the adjustment of very complex family and social problems, maintenance of the health of those charged to her care and in spending her money.

The field is ripe for the establishment of more parent education classes. What parents want to know is when and why and how to do their job and they realize help can be obtained from the child psychologist, the scientifically trained homemaker and other experts. The vocational interest is immediate and it is the province of the school to meet it.

Home Practice in Food Preparation for College Students

VIOLA M. BELL
Iowa State College

Many senior students in home economics have felt the need of more experience in food preparation. Realizing that it is impossible to afford sufficient of this in prescribed college foods courses, the faculty of the Foods and Nutrition department have planned a project which provides for practical work in the student's home environment.

Food preparation in meal combinations is the first prescribed course. The composition of foods, principles of cookery, analysis of standard products and study of basic proportions of recipes are its essential subject matter. There are seventy-two three-hour laboratory periods and twenty-four one-hour discussion periods. Opportunity is frequently afforded during the course to mention that further preparation at home will aid in clarifying this or that dufficulty in food manipulation.

At the close of this course, the project is carefully explained and a set of report blanks given to each student. A short preface suggests the ultimate advantage later of doing such work. The time unit is three consecutive meals daily, for a period of two weeks. The aims of this practical work are to develop skill in manipulation, to make a wider application of factors of cookery already emphasized and to gain confidence in management of meal preparation. As a student plans her home menus, she is urged to include those foods, the cookery of which will answer her own individual problems. The results desired are

a. Ability to plan series of meals, giving attention to family's food needs and resources.

b. Ability in meal preparation, as evidenced in good management in use of time, energy and food materials.

c. Ability to prepare standard products.

The menus are to be recorded in detail, suggesting that questions or criticisms be included.

The summary, two pages in length is organized alphabetically, beverages, cereals, etc., for her to record name of every product prepared, number of times prepared and remarks as to its quality. If the student has questions while doing the practical work. She is urged to write to the Head of the Foods and Nutrition department.

A letter is sent to each mother or guardian asking her aid in connection with her daughter's food preparation at home. Realizing her value as a counselor, an "Advisory Report" is enclosed with questions in regard to what difficulties the daughter experienced while working. When mailing in the finished report, the student encloses the mother's answers to the questions in the advisory questionnaire. This is all kept on file in the Foods and Nutrition department office.

The college registrar checks it as completion of a course number F. & N. 341a, without credit, which is prerequisite to the student's registration in Meal Planning. The project is returned to the girl at the end of her Meal Planning course for her to study and criticise. This is done in order that she see her own development in planning meals, not only from the scientific but also from the aesthetic viewpoint. Many graduates and seniors urge that this self-motivated effort to overcome lack of dexterity in the actual handling of food be increased from two to four weeks in time.

To date approximately four hundred completed projects have been returned. Student's comments on these reports are carefully studied and considered in the continued effort to improve the course in Food preparation.

The Vocational Home Making Program at Sweet Grass County High School

MRS. MYRTLE KUNS SCHUMP
Big Timber, Montana

Imagine a clothing laboratory so spacious and sunny that tree-like oleander plants have ample room to spread and bloom without in any way interferring with any of the work of large classes! An insignificant detail, perhaps, but one that makes a happy impression upon the visitor who may chance to step into the Sweet Grass County High School's Vocational Home Economics Department at Big Timber, Montana.

And the first impression of cheery welcome and home-likeness of the place is in such contrast to the rather drab little town in this big ranch county that any one with an ounce of imagination knows that this must be a place where things happen.

Several all day visits, and consequent acquaintance with teachers, pupils and towns people brought together the story that the oleanders seemed to symbolize.

The beginning dated back to 1911 when a principal's wife organized the home economics course and used her home as a laboratory. The following year the increased enrollment made it necessary to rent a small cottage which was used until 1916 when the department was transferred to the enlarged high school building, and people with a vision began planning for the future. They and their successors planned well, for the present department ranks high in attractiveness and usefulness.

The introduction of Vocational Home Economics came a few years later, and not even the most modest informants failed to tell of numerous worthwhile activities that have taken place during the years since that time.

The first bit of information came from a professional man, apparently not much interested in the high school, and when Miss K., the home economics teacher who has directed the vocational home making program since it was first introduced, happened to be mentioned, he affirmed with no little emphphasis, "That woman has done more for this town than any other two people in the county." His estimate of her work seemed to be substantiated by the facts.

During the time that the vocational home making program has been in operation over ninety-five per cent of all girls in the county who have entered high school have been enrolled in the freshman course and a little more than seventy-five percent of this number

Continued on Page 21

The Effect of Teaching Home-Making in a Home

By MILDRED AND WINIFRED MCELROY
Teachers of Home Economics, Teague, Texas

The closer to the home the principles of home-making can be brought, the more binding are its influences and the more effective are its teachings. These principles become even more vital when they can be learned in a home itself, and especially in one which has been built through the plans and efforts of the community and the students themselves such that there is a feeling of personal interest in every problem involved in making it the "ideal home".

The truth of the foregoing statement has been proved in the home economics work which has been carried on and is now in progress in the high school of Teague, Texas. Teague is a town of about 5,000 population and is located about sixty miles to the Southeast of Dallas.

Two years ago, after two unsuccessful attempts had been made to secure a place on the list of standard departments, vocational home economics was introduced into the school system. At that time the home economics department was located in two adjoining rooms on the third floor of the high school. The equipment consisted of the minimum equipment which any beginning home economics department is required to have; that is, sufficient tables, chairs, machines, work cabinets, stoves, sinks, etc., to carry on classes for twenty students. The demand for the courses offered was encouraging and increased after the first term. The girls who were enrolled in the work showed so much enthusiasm and desire to learn more that it aroused the interest of other students in the school.

This was carried over into the homes to such an extent that the mothers and fathers, too, began to make inquiries into what was being offered that seemed of such importance to their children, and frequent visitors were entertained during class periods. An opportunity was at hand to show these people how home economics work could meet their needs, and every available chance to do this was used. The girls were as eager to show what they were learning and what the work meant to them as the instructors themselves, so that every opportunity for interesting the patrons of the community was eagerly seized by the girls, planned, and carried out to that end. Thus, through numerous entertainments and school activities, in which home economics took an important part, the enthusiasm and demand for home economics became most outstanding. Even the business men expressed their interest. So sincere was this interest which was being shown by the community that by the close of the first year of vocational home economics, plans were made, bonds voted, and the foundations begun for building a home economics cottage in Teague.

During the summer the work progressed on the building until, by the time school opened, the following September, the cottage was almost complete. Teague is not a wealthy community by any means, so the importance of filling the needs which they believed only a cottage could, and yet being as economical as possible was strongly felt. In order to conserve the cost as well as to put to good usage material on hand, most of the brick for the building was taken from an old school house which had been condemned and necessitated razing.

But the mere erection of the house itself did not satisfy the people—for it was the work that was to be carried on in it that was to gratify their interests. Therefore, their efforts were next turned toward equipping the building with modern equipment, con-

Clothing Laboratory—as used during class periods. By rearrangement of the equipment in this room, it can easily be converted into a banquet room, or a place for large group entertainment.

veniently arranged. The laboratories needed little to complete them, since the furnishings for these were transferred from the old home economics department. But what was necessary to make the work more efficient was readily granted. Donations from clubs, from individuals, from business firms, and from the girls and teachers, were most liberal. Space will not permit a list of things donated.

The most significant outgrowth of building and furnishing the cottage is the fact that the interest has been greatly magnified and deepened. A feeling of ownership and a desire to express that feeling has developed in the girls, and as a result they have taken more pride and more personal interest in the real problems of a home. There has been more of the practical application of that which has been learned in the classroom, and reports from the homes and the home project work have shown that the tendency to want to "carry over" the principles learned in the class into the home has increased beyond all expectations. Home problems of living, of managing the home, of family relationships, etc., have become truly vital to the girls. Higher standards of living are being sought, and thus some of the aims of home economics work are being accomplished.

The cottage has not served its full purpose when being used as a basis for many class problems. Besides presenting a favorable place to teach home economics and furnishing numerous vital problems, it is used as a community center also. For the various clubs in the town it serves as a place to meet and carry on their work; for entertainments of many types it is most adaptable; and all in all, it has become the center of interest in Teague. This may be forcefully brought out by the following list of the outside activities which have been held in it during the past school year:

Banquet for the Bi-Stone Federated Clubs—prepared and served by home economics girls.

Lecture given by interior decorator —sponsored by Culture Club.

Regular meetings of Culture Club.

New Year's Reception—by Culture Club.

Christmas Home-Coming Banquet for Teague Ex-Students.

Bridge Tournament — by Delphian Club.

Regular meetings of the Parent-Teacher Association.

Bridge and Forty-Two Tournament—put on by Parent-Teacher Association.

Banquet for American Legion and Auxiliary.

Weekly luncheons of Business Men's League—prepared and served by home economics girls.

Banquet for Business Men's League and their wives—prepared and served by home economics girls.

Home Economics Club meetings.

Home Economics Club Christmas Charity Party.

Faculty luncheons — prepared and served by home economics girls.

Open House during County Fair.

Junior-Senior Banquet—prepared and served by home economics girls.

Banquet for graduates—Methodist women.

Banquet for school board—home economics girls.

Children's Easter Party—home economics girls.

Rest room and lunches served during County Meet.

Refrigeration demonstration—by ice company.

Civics Class Tea—by home economics girls.

Open House at close of school.

The greatest value of the cottage to the community lies not in "the activities held in it", but rather in the influence it has had upon students in the home economics classes. At an age when adolescent girls have first awakened, with newly born interests to the real meaning of home and its responsibilities, the cottage has served as the inspiration upon which new ideals, higher goals, and greater ambitions for becoming better home-makers of

Foods Laboratory—With proper equipment these girls study the fundamental principles of food cookery.

the future, have been built. It has created in the girls a keener sense of beauty, a greater understanding of home responsibilities, a more genuine appreciation of management problems, a deeper feeling of interest in family relationships, and a fuller insight into the real pleasures of home life. So greatly has the sentiment toward the cottage as a home been instilled, that at the close of the year the girls of the graduating class, all of whom took courses in home economics, gave as a parting gift to the Home Economics Club a memory book in which they had compiled records and pictures of all the incidents relating to the home economics cottage life which they cherished, and which they dedicated with these, their own words, to the future Home Economics Club members:

"The Home Economics III Class, in dedicating this Cottage Memory Book to future Home Economics Club members, hopes to do its bit in keeping aglow that spark of pride and love of home which smoulders in the heart of every true American girl."

The following poem, written by one of the senior girls, beautifully expresses the sentiment which is felt in every student of home economics toward the cottage:

"To Our Cottage"

"You're ours, little Cottage
By the side of the road,
With your brick and your mortar
We've so fondly bestowed.
We love you and cherish you,
Cottage so fine,
And we'll make you a haven
Of roses and vine.
We'll make you a place
Of love and of beauty
Where we'll learn of the practical
And the keen sense of duty
That others who visit here
As years come and pass
Will be glad to remember
That first struggling class,
Whose hopes beat high
For the house by the road,
Whose tears and whose laughter
Enrich the abode."

Is it any wonder that the community feels that it has been fully repaid for the sacrifices it has made for its children?

NEWS NOTE

IOWA

Mr. Hampton T. Hall, a vocational Agriculture instructor at Charles City, Iowa, has been appointed as Assistant Supervisor of Agricultural Education for the State of Iowa. Mr. Hall will assume his new duties July 19, 1929.

Mr. Hall has had several years of experience as instructor of Vocational Agriculture and is an exceptionally strong methods man. His supervised farm practice work has also been of a high order.

The Vocational Home-Making Program at Sweet Grass County High School

Continued from Page 18

have continued through the second year's work.

Graduation from high school has not meant an end to the work for the total number of evening school units for adult women has been second highest to any community in the state.

The home economics teacher and classes have been a frequently used as information centers for the people of the community, as well as a service group. If illness or too many small children in the family interferred with the fall canning, this has made a good problem in larger quantity preservation than the department could have afforded. Make over problems have been a means of helping some needy child, and Red Cross garments have been made as the departments bit toward social service.

Community service has taken the form of annual spring dinners to the Woman's Club; noon lunches to the rural track meet contestants and a high point achievement in the first years of the vocational program was in securing community cooperation in feeding the visitors and contestants to the State Music Meet.

The account of each groceryman's generous donation, the housewives loans of silver and dishes, and the high school boys' construction of tables and benches, not to mention the preparing of two meals a day by the home economics classes proved nothing less than a real community project. The visitors who numbered nearly one fourth as many as the total population of the town were so well pleased with the generous hospitality that has been provided that they voted to return the next year.

A functioning Home Economics club has assumed the responsibility for activities within the school, and have provided suitable assembly programs, assisted with school fairs and exhibits, promoted interest along professional lines of work and has also served as the medium through which home projects have been planned and reported upon.

The trans-continental traveler sees an uninteresting red brick building, from his pullman window, and little does he guess that it is the center of activity for a so thoroughly functioning department that does more far reaching things than can be enumerated on paper, but then, he does not see the oleanders.

Statement of Ownership, Management, Circulalion, Etc., Required by the Act of Congress of August 24, 1912

Of AMERICAN VOCATIONAL ASSOCIATION "NEWS BULLETIN" published Quarterly at Indianapolis, Indiana, for October 1, 1928.

State of Indiana
County of Marion } ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Z. M. Smith, who, having been duly sworn according to law, deposes and says that he is the Editor and Business Manager of the American Vocational Association "News Bulletin" and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, American Vocational Association, Room 225, State House, Indianapolis, Ind.

Editor, Z. M. Smith, Room 225, State House, Indianapolis, Ind.

Managing Editor, None.

Business Managers, Z. M. Smith, Room 225, State House, Indianapolis, Ind.

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R. W. Gregory, Purdue University, Lafayette, Indiana.

R. L. Cooley, Vocational Director, Milwaukee, Wisconsin.

E. E. Sheldon, R. R. Donnelly & Sons Company, Chicago, Illinois.

Chas. W. Sylvester, Vocational Director, Baltimore, Maryland.

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AMERICAN VOCATIONAL ASSOCIATION,
(*Signed*) Z. M. Smith, Secy.

Sworn to and subscribed before me this 27th day of September, 1928.

(Seal) (*Signed*) Mary W. Merrill.

(My commission expires 12-15, 1930.)

Form 3526.—Ed. 1924.

INDUSTRIAL EDUCATION

The High School Cooperative Course at Anderson, Ind.

H. G. McComb, *Associate Professor Industrial Education, Purdue University*

The American Vocational Guidance Association has indicated that a complete vocational guidance program has four stages, as follows: (a) the selective stage, (b) the training stage, (c) the placement, and (d) the followup. This brief article attempts to describe the Anderson Cooperative Course under the above heads.

Beginning in grade 7 in the Anderson Junior High School, courses are set up in printing, woodwork, mechanical drawing, electrical work, and elementary sheet metal, the latter three activities being presented as a general shop program. Beginning in grade 7, therefore, vocational director, instructor, student, and we hope, parent, begin to think of an exploratory series of activities offered largely for the purpose of enabling a boy to decide whether he has a mechanical bent. Of the total number who take these courses, relatively few will so decide.

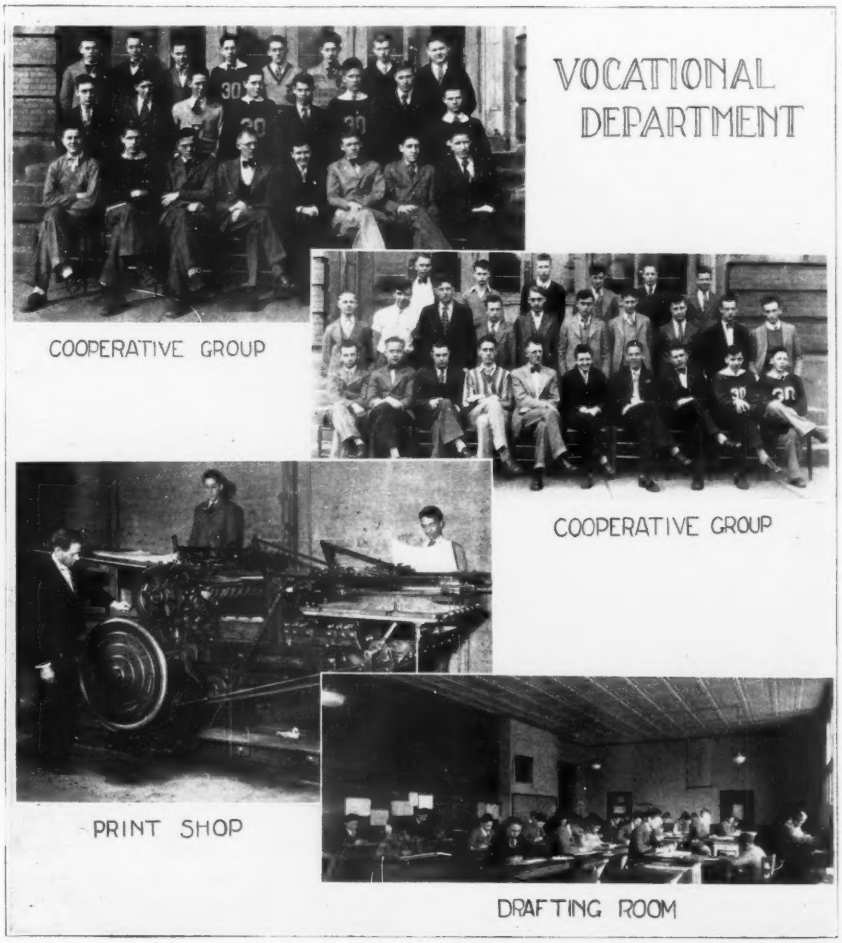
When grade nine has been reached, a fairly large group will enter the second or training stage. This does not mean an absolute choice of a trade, but it does mean a narrowing of choices somewhat and a turning of attention on the part of the boy to the mechanical, industrial field. Courses in machine shop, drafting, printing, or pattern making are entered on a three hour a day basis. Mr. Rotruck, the vocational director now gives closer attention to the boy and his abilities, attitude, ideals, and school records including shop and academic subjects. In the background of his thinking, and frequently brought to the foreground, Mr. Rotruck has the thought of getting suitable candidates for the "co-op" course. Normally, a student will take two years of this course. During this time, in addition to the skills and habits of a high standard, he is getting through personal conferences with his instructor, his vocational director, and others, first hand information about occupational field including the "co-op" field.

At the beginning of the eleventh grade, a careful selection is made by Mr. Rotruck of boys who, in his judgment, will satisfy the requirements of industry and the schools in this special course. This is the placement stage. That is, the boy is paired with another boy, and employed by the industry on a month about basis. The great majority of the boys are employed by one company, the Delco Remy, a branch of the General Motors Corporation.

One outstanding advantage of this scheme is that the "follow up" begins immediately after placement. Many conferences occur between representatives of the industry and of the school —during which emphasis is placed upon personnel of the "co-op" group, adjustment within the plant, and attitudes and ideals shown by the boys either in school work, or in industry.

From the standpoint of the company-these boys are apprentices entering a three year course—during two of these years, they will alternate, one month in the plant and one month in the school. During the third year, they will spend all of the time in the factory on carefully selected jobs. Following this, a number of these boys have been given 4 year technical scholarships to the General Motors school at Flint, Michigan.

From the standpoint of the school, these boys enter special classes that enable them to get 25 weeks of school throughout the year and eventually complete all high school graduation requirements.



Mr. Siler, chief draftsman, points with pride to "Bill" a product of the "co-op" who planned the present, recently completed, drafting room. Mr. Siler explains that they recently sent an outstanding "co-op" boy to the electrical department of a rival concern, because he realized that he was thus creating good will and incidentally a market for more of Remy's manufactured goods. Very recently the industry has doubled the number of boys employed under this plan, and would now take more if Mr. Rotruck could get suitable candidates.

This company does not hesitate to say that the department housing 43 of the boys and devoting itself to the making of tools and dies is a financial asset to them.

In conclusion, the plan I have described has many advantages, only a few of which may be noted. From the Economic standpoint the boy gets the benefit of the latest mechanical devices actually in production instead of training on school equipment almost necessarily out of date. Also the projects of the student go into industry instead of being largely exercise processes. No handicap is placed on the student in attending higher technical institutions since he completes high school graduation. The employer has an opportunity to try out two highly selected boys for each job. Since the boys are paired, no industrial mechanisms stand idle. The dream of the educator, i. e., a real life situation during the training period is thus attained.

Book Reviews

Methods and Teaching Problems in Industrial Education, By F. Theodore Struck, Published by John Wiley and Sons, Inc., Price $2.75 net.

In this book Dr. Struck has made a sound discrimination between the function of industrial arts education and vocational industrial education. At the same time he points out that the problems met by teachers in these two fields of industrial education are similar.

In presenting teaching problems and special methods, the author makes provision for the student to gain an acquaintance with the basic foundations of teaching in accordance with which special methods are developed.

The book should be of value to teachers in vocational industrial education.

LABOR MANAGEMENT, a volume of 680 pages, is a summary of the methods of personnel administration as they have been worked out in actual practice by various representative firms. It covers the whole range of employer-employee relationships, reviews current practices, discusses their nature and the extent of their use, analyzes their advantages and disadvantages, and explains how the purpose in view may be best attained.

Labor Management is not a theoretical treatise but is a practical manual of information and directions on how things should be and are done successfully. The book is of especial importance to every employing concern, both large and small. It is valuable to every executive who has any kind of responsibility in the management of workmen.

The author, J. D. Hackett, has had practical experience in industry ranging from foreman to employment manager.

Published by D. Appleton and Company. Price $5.00.

OPPORTUNITY AHEAD!—This volume is edited by Clayton H. Ernst and Trentwell M. White. It is published by D. Appleton and Company. The list price is $1.50.

Aviation, radio, insurance, acting, teaching, the ministry, detective work, library work, and the Army and Navy are discussed by authorities in the field of vocational guidance.

Each vocation is treated in a chapter devoted exclusively to the subject. The subject matter for each chapter is the contribution of a man who has risen to distinction in his special field. Each of the writers sets forth in detail just what capacities and training are required for his own occupation.

This is a book that every ambitious young man and woman should have an opportunity to read.—*Z. M. S.*

PRINTSHOP PRACTICE.—R. A. Loomis. Bruce Publishing Co.

This is a text for beginners. The author states that he hopes the text will be taken as a guide. The organization and content of material indicate practical experience in printing. The usual textbook method of presentation has been followed. At the end of each chapter is a group of knowledge questions. Self appraisal questions here would have improved the book as a text. The English is faulty in some places. A group of related mathematical problems is given in the appendix. The text contains a number of very good illustrations. The text should be in every printshop teacher's library.

—*Ammon Swope.*

SHORT COURSES IN MECHANICAL DRAWING by Wm. A. DeVette, Bruce Publishing Company.

This drawing text is for use in high school, evening schools and colleges. It deals exclusively with drafting as applied to machine shop work. An unusual feature is that practically all the illustrations and plates are in prospective. The student is expected to project these into working drawings in accordance with the discussion and directions given in the first chapter.

The book is carefully illustrated and the discussions of the various topics such as sections, threads and gears seem to be adequate.—*G. K. W.*

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Of AMERICAN VOCATIONAL ASSOCIATION "NEWS BULLETIN" published quarterly at Indianapolis, Indiana for April 1, 1929.

STATE OF INDIANA
COUNTY OF MARION ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Z. M. Smith, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the American Vocational Association "News Bulletin" and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

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AMERICAN VOCATIONAL ASSOCIATION,
(*Signed*) Z. M. Smith, Secy.

Sworn to and subscribed before me this 21st day of March 1929.

(SEAL) (*Signed*) Mary W. Merrill

(My commission expires 12-15, 1930.

Form 3526.—Ed. 1924.

MANUAL ARTS EDUCATION

The Significance to the Manual Arts Program of Current Beliefs in Regard to Individual Difference

By WILLIAM T. BAWDEN, *Managing Editor, The Industrial Education Magazine, Peoria, Illinois*

THIS topic may be treated conveniently under three main divisions: (1) A summary of current beliefs in regard to individual differences; (2) General conclusions drawn from this summary; (3) The significance of these conclusions to the manual arts program.

At the outset it may be appropriate to admit that I approach this study with some prejudice against the mechanistic interpretation of the phenomena of human nature and behavior. While certain facts appear to be established beyond a reasonable doubt, it is not necessary to believe either that we know it all, as yet, or that we have hit upon the correct interpretation of what we think we do know.

(1) CURRENT BELIEFS IN REGARD TO INDIVIDUAL DIFFERENCES

In attempting to summarize what is currently believed in regard to individual differences I can do no more than to bring together a few of the conclusions set down by students of the subject, which seem most pertinent to the topic in hand. I must depend upon a rather elastic interpretation of the word "current," since no one knows how widely these views are held. It is sufficient for the purpose of this discussion that they are put forward convincingly, and with some supporting evidence, by recognized authorities.

(1) ENORMOUS DIFFERENCES EXIST AMONG INDIVIDUALS

The first belief to be noted is as to the existence of enormous differences among individual human beings. A common fact of daily observation is that people vary widely in respect to height, weight, color of skin, and other particulars, which have been classified as structural differences. We also vary widely in respect to functional characteristics or traits; such as speed in running, ability to lift a heavy weight, ability to identify a traffic signal at 300 yards. People differ widely in what we call intellectual ability—ability to follow and understand an argument, to solve a puzzle, to learn a language.

While the existence of these differences may be said to be a matter of common knowledge, it is doubtful if their extent is generally understood. The most striking illustrations are found in the records of the army tests, referred to by all the psychologists who discuss this subject. During the World War over 1,500,000 men in the American Army were given the army alpha examination. As pointed out by Valentine, 15 per cent of the men scored less than 30 out of a possible 212 points, while 1-5 of one per cent scored over 195. That is, on this test, the achievement of some of the men was more than 6½ times as great as that of some others.

Starch is reported to have used a group of 13 standardized tests with a class of 36 8th grade pupils, in which the scores ranged from 45 to 90 on the test which showed the least amount of variability, and from 4 to 104 on the test which showed the greatest amount of variability. The average of the 13 tests showed the best student to be more than 7½ times as able as the poorest.

(2) DIFFERENCES NOT CONFINED TO PHYSICAL AND INTELLECTUAL

Individual differences in physical and intellectual traits have thus far received the greatest amount of attention, perhaps because most readily or most commonly observed. Ellis and others call attention to the existence of differences, equally significant, which remain to be studied in the realm of the emotions, in the religious or spiritual, and in the social aspects of human life and behavior. The lifting of these curtains suggests something of the complexity of the problems of individual differences.

(3) THE NORMAL-PROBABILITY CURVE OF DISTRIBUTION

One of the important tenets in regard to individual differences relates to the manner and frequency of their distribution, The results from a great many investigations show that whenever a large number of "unselected" individuals is examined, the measures or scores with respect to a given trait tend to be distributed among the group according to a pattern of frequency called the normal-probability curve. This is merely a technical way of saying that the great mass of the scores centers about a mean or average rating, and that the numbers of cases occur in gradually decreasing series, both upward and downward on the scale, until a practical vanishing-point is reached at each end of the distribution.

A practical application of this conception of the normal distribution of individual abilities is familiar to many teachers in connection with instructions for the marking of students. After eliminating the failures, the teacher is directed to arrange his students according to ability or achievement in a descending series, with the ablest at the top and the least capable at the bottom. The highest 5 per cent are to be marked A; the next highest 20 per cent, B; the next 50 per cent (the middle 50 per cent of the entire group), C; the next 20 per cent, D; and the lowest 5 per cent, E.

The significance to the school of the discovery of this distribution tendency is in the fact that whenever children are brought together in large enough numbers, we may expect to find them differing among themselves with respect to native abilities approximately according to this pattern.

(4) CORRELATION OF ABILITIES

It has been shown that, in general, a strong correlation exists between I. Q. and rank in school subjects, and also among ranks in different school subjects. That is, students having high I. Q., as determined by the standardized intelligence tests, tend to be among those who do superior work in school subjects, and students who do superior work in one school subject tend to do superior, or at least much better than average, work in all the school subjects they undertake. While there must be numerous exceptions, since that is one implication of "individual differ-

ences," psychologists now ask us to abandon the notion of a law of compensation, in accordance with which we used to suppose, for example, that a girl who is below average ability in mathematics will necessarily offset this deficiency by superior talent in drawing or music, or that a boy who is a failure in language or history must be exceptionally capable in some other line, probably handwork.

However, I do not understand from this that we are expected to believe that the individual is equally talented or equally deficient in all of his measurable traits. With every normal individual there are some things that he can do, or enjoy doing, better than others. It is important that the individual who would realize the maximum development of which he is capable should consider an inventory of his possibilities and select a line of attack that holds out some future promise.

(5) RELATION BETWEEN SUPERIORITY IN ABSTRACT SUBJECTS AND THAT IN PRACTICAL SUBJECTS

A very significant modification of our attitude toward this matter of correlation of abilities is suggested by the report of Terman's study of gifted children. In this investigation approximately 1,000 children, each of whom ranks well within the top one per cent of the school population of corresponding age, were carefully studied and compared with a similar group of unselected children. Teachers' ratings of school work show that the gifted children are doing work of superior quality in the grades in which they are located, and that this "superiority is greatest in 'thought' subjects, and is near zero in such subjects as penmanship, sewing, manual training, games and sports."

There appears, therefore, a tenable basis for the belief that differences exist among children of such a nature that some individuals are capable of superior achievement in the practical activities of handwork while at the same time manifesting average ability or less in an abstract subject, such as mathematics or language; and, conversely. The apparent conflict between this conception and that discussed under correlation of abilities disappears when it is understood that we are here considering achievement or performance in school work, while the earlier discussion relates to innate abilities or traits. Such differences as are observed may be due to a variety of causes, but *interest* and *purpose* certainly are involved.

(6) CAUSES OF DIFFERENCES

No treatment of the subject would be complete without some consideration of the causes of individual differences, tho here we approach thin ice. As suggested, clarity of thinking demands that we distinguish between differences in native abilities or qualities, and differences in achievement or performance in school work.

Of the former, Throndike discusses causes of individual differences under original nature, maturity, and training. An individual may have been born with an endowment of a certail mental trait capable of becoming an amount or degree which we may designate "A." At a given time, when he is tested, he may possess but "½A" of that trait, due to the fact that original tendencies have not yet fully matured, and to the further fact that the circumstances of life and training have not been favorable to its development.

Concerning differences in achievement in school subjects, both as between one individual and another and between the same individual's performance at different times, every teacher knows that they exist and that the causes are many and complex. The limits of this paper prevent further analysis at this point.

(7) INFLUENCE OF HEREDITY AND ENVIRONMENT

While there appears to be considerable weight of authority for the view that individual differences are traceable to influences of both heredity and environment, no one has yet discovered a generally-accepted formula for defining the limits of the sphere of either. It may be set down as a current belief that, allowing for discrepancies which no one is yet wise enough to explain, superior abilities or exceptional talents are inherited from superior ancestors. As Terman says, all of the important studies "agree as to the existence of a very striking social hierarchy with respect to the production of superior individuals." Some would go so far as to say there can be no exceptional ability without the influence of the heredity factor.

On the other hand, it seems reasonable to assert that there can be no exceptional achievement without favorable environment. Citation of a few cases of individuals who have overcome the handicap of adverse surroundings does not prove that every individual born with superior ability succeeds in rising above unfavorable conditions.

(8) COMPLICATIONS DUE TO ADVANCING AGE

One of the perplexing problems requiring further investigation by students of the psychology of individual differences is the increasing uncertainty that enters with advancing chronological age. Indeed the assertion that we are "a nation of sixth-graders," or intellectual "12-year-olds," based on the findings of the army tests and other similar studies, is now assailed by those who suggest that the reason why so many of the young men in the army draft failed to register more than 16 or 17 years of mental age may be because they were measured on a scale that does not read beyond that point.

In the present state of confusion it is difficult to say precisely what is current belief, but with advancing age there comes something that is called mental maturity, or maturity of innate tendencies. As this maturity develops in different individuals with varying speed and intensity, it still further complicates the problem of individual differences. It is safe to say that the nature and significance of mental maturity are not very well understood, and that the lapse of time and the influence of a favorable environment may bring about results in the case of any individual that can not be predicted on the basis of intelligence tests alone.

(9) TRAINING FOR GIFTED CHILDREN

Psychologists appear to be agreed that we do not yet know enough to prescribe appropriate procedure for the special training of gifted children. Individual differences have been *discovered* and to some extent *measured*, and classified; but we do not yet know what to do about them in any comprehensive way. As Terman says, "a study of superior talent raises a host of pedagogical problems . . . About the culture of genius next to nothing is known."

(10) IDENTIFYING SUPERIOR ABILITY

The formulation of a program of special training for gifted children will necessarily be held in abeyance, for much preliminary work remains to be done. We have not yet developed a satisfactory simple technic for discovering and identifying superior talent. Special preparation of classroom teachers, and a more or less elaborate program of testing, at present seem to be the minimum essentials for anything approaching a classification of children according to native ability.

It is said that teachers generally cannot, or at least do not recognize superior ability in the usual classroom routine. According to one authority, "one's best chance of identifying the brightest child in a schoolroom is to examine the birth-records and select the youngest, rather than to take the one rated as brightest by the teacher." It will undoubtedly be agreed that it is very difficult for teachers effectively to classify their children according to native ability, and hence potential achievement, by any method of superficial observation.

(11) DIFFERENCES AMONG TEACHERS AS WELL AS AMONG STUDENTS

What has been said prepares us for the assertion that individual differences are to be found among teachers as well as among students, tho no one has made a sufficiently comprehensive investigation to present an adequate

picture of the nature and extent of these differences. In view of the fact that teachers are "selected" for a variety of purposes, and by a variety of methods, it is unlikely that a group of teachers would exhibit a normal-probability curve of distribution if tested for native ability. They would undoubtedly show proportionately larger numbers of cases in the higher levels, and fewer among the lower.

Nevertheless, even without objective data, we are justified in believing that teachers differ widely, not only in such structural characters as height, weight, and the like, but also in those qualities of mental alertness, optimism, poise, and human sympathy that count more significantly in the making of a teacher.

(12) RACIAL DIFFERENCES

Finally, certain beliefs are current with regard to individual differences that are said to be traceable to differences of racial origin. For all practical purposes it may almost be said that the "differences" are to be found in current opinions on the subject.

One group of writers appears to hold to a positive belief in racial differences in intellectual traits; while another takes the opposite view that there is no significant difference that cannot be accounted for by the influences of environment. From the standpoint of the classroom teacher, the outcome of the debate as to origins and causes is of less significance than the determination and organization of facts in regard to existing differences among the racial groups of children as they come to school.

Since the doctors disagree so radically, I am at a loss to know what to set down here as current belief. In this connection I am impressed by Throndike's statement, quoted by Garth: "In many practical matters the upper limit of a group is as important as its average of typical status."

(11) GENERAL CONCLUSIONS AFFECTING THE SCHOOL

With this very inadequate and superficial summary of what some, at least, of the psychologists asks us to believe in regard to individual differences, let us turn to a brief statement of certain conclusions of deductions from this material affecting the work of the teacher.

(1) Since children are manifestly so unlike, the school must modify some of its mass methods, and find a way to recognize and deal with the individual. As some one has well said, it is the *individual* who learns; if there be no such thing as "group learning," there can be no such thing as "group teaching."

(2) Since children are different, we should expect different reactions to a given situation, such as the teaching of a lesson.

(3) Better classification of children in school will improve efficiency, since there is a limit to the extent to which the teacher can adapt the instruction to the individual capacities of the students.

(4) Psychologists assert that one-half of our youth are unable to do the work necessary to graduation from high school, and that one-third do not have the intellectual capacity to complete the eighth grade, as our schools are now organized. These assertions are a challenge to school administrators, for, if they are not disproved, it seems clear that we are "calling upon teachers to teach what cannot be learned." We know it is possible to change the school, but no one believes that we can remodel human nature to the extent of eliminating individual differences.

(5) It is the duty of every teacher to study the problem of individual differences, and, so far as possible, keep informed as to the work of investigators in this field.

(6) In applying what he knows about individual differences, every teacher should be aware of the *range of abilities* represented by the members of his classes. Without doing so, he can hardly be conscious of the limits of his task as a teacher.

(7) In considering the individual student, he should remember that his present status is not so important as his potential limit of ability. In most cases this limit is unknown, possibly unknowable, both to student and teacher. The significant thing is to recognize that there are possibilities up ahead.

(8) An important part of the teaching function is to study and encourage the *interests* of children.

(9) If children differ widely in the purposes and motives which actuate them, these differences must be due, in part at least, to differences in opportunity for contact with personalities capable of inspiring motives. The teacher has a great responsibility, as well as a great opportunity, in this aspect of his work.

(10) Since in any individual case the extent of the influence of environment is unknown, we are not likely to exhaust its possibilities if we try to make its influence, thru the school, as potent as we can.

(11) On the advice of the psychologists, the teacher should concentrate attention on specific traits or abilities, and develop them as fully as circumstances permit, with the assurance that there is some sort of transfer process by which the individual applies knowledge or skill gained in one situation to solve the problems presented by some other situation.

(12) The existence of individual differences among teachers suggests that there may be greater significance than we now appreciate in the remark that "only bright teachers can fully understand bright students."

(III) SIGNIFICANCE OF THE MANUAL ARTS PROGRAM

In considering the significance of these conceptions to the manual arts program, it is fitting to note that from the beginning workers in the field of hand training have been hospitable to the suggestions of the psychologist in regard to individual differences. The shop teacher has been the more open-minded on this subject as he has had abundant concrete experience against which to check the findings of the psychological laboratory. Every shop teacher can give objective illustrations of the wide ranges of ability and achievement to be found in a class of high school boys.

Manual arts and industrial teachers have of necessity taken individual differences into consideration, and have planned their curricula, their shops and equipment, and their teaching methods in accordance with the practical situation. This section of my paper, therefore, consists of an analysis of what every experienced shop teacher already knows in an empirical way, and may take the form of suggestions as to his attitude toward the problem.

(1) STUDY OF THE PSYCHOLOGY OF INDIVIDUAL DIFFERENCES

Every shop teacher, as indeed every teacher, should be a student of the field which has been so lightly and superficially sketched in this paper. The psychologists have done us a great service in making available the results of significant researches. There is evidence that important changes are impending in the conception and purpose of public education. A better understanding of the place of handword in education will bring increasing demands upon those to whom this phase of the general program is entrusted.

(2) MAKING ALLOWANCE FOR INDIVIDUAL DIFFERENCES IN TEACHING

Just as the manufacturer analyzes his raw material, and the physician studies his patient, so the shop teacher should know his students. He should be aware of, and recognize specifically, individual differences, not only in mechanical ability, but also in intellectual traits, emotional and other personal traits. Only by taking these differences into account, and making allowance for them in methods of dealing with the students, can shop teaching become effective.

Something more than superficial reading in the psychology of individual differences is essential if the shop teacher is to gain an adequate understanding of the requirements and the

opportunities of his job. Teachers become accustomed to the gross measures used in determining the classification of children and are likely to attach to these classifications a significance which they do not possess. "Boys who are 10 to 10.5 years of age" and "boys who are in the 8-A Grade" are fairly definite classifications from an administrative standpoint, but examination of any age-grade-distribution table shows how imperfect they are as descriptions of groups of students.

(3) TEACHING MUST BE ON INDIVIDUAL BASIS

Since there is no magic in the machinery of school administration, the teacher in the shop and in the classroom must find some way to establish contact with the individual student if learning is to take place. The instruction must be on an individual basis, at least to the extent of insuring that every student makes the effort to learn, and that the performance of every student is checked up and evaluated.

(4) RECOGNITION OF SUPERIOR ABILITY

In view of both the importance and the difficulty of identifying superior talent, every shop teacher should be on the lookout for it, and should be prepared to offer such encouragement as circumstances may suggest. It is especially important to assign to the exceptionally able boy such tasks as correspond to his ability and call out real effort. It is a more serious matter than teachers generally realize to permit a talented youth to loaf along at half-speed on tasks pitched to the capacity of "average" boys.

(5) KEEPING PACE WITH CHANGING CONCEPTION OF EDUCATION

Since the evidence seems to show that the superiority of gifted children is not so marked in practical activities as in the abstract subjects of the curriculum, it is possible for an individual boy to rank above average in handwork while rated poor by teachers of academic subjects. The shop teacher, then, must have the vision to see the possibilities in students rated as failures in other departments of the school.

If the school system must undergo changes to meet the needs of the lower 50 per cent of the children, the manual arts department is one place in which the necessary adaption can be most readily worked out. Very little can be done to algebra or chemistry, or Latin, to adapt them to inferior mentality—granting that that is what has to be done—but, to shopwork, yes. The experience of industry, in finding some suitable work for all hands, should be suggestive to the schoolmaster.

There is a sense in which the school administration is at fault in conceiving of the shop as the "dumping ground" for all the undesirables who do not fit in anywhere else; there is also a sense in which the shop is at fault if it does not at least study the undesirables and do what it can for them. Higher mathematics may have a reason for "washing its hands" of certain students of inferior ability that is not valid for shopwork.

The school is not justified in turning boys and girls out on the street because they cannot do, or cannot be interested in, a given program of studies. Separation should not take place until the school has exhausted every possible resource, and for the present—until we solve some of the problems before us—it looks as if the shop is the place where this last resource is to be exhausted.

(6) THE RANGE OF ABILITY OF THE CLASS

Every shop teacher should be conscious of the range of ability represented by the members of his class. It is extremes of ability in the same class that complicates the teacher's task; but knowledge of the existence of the problem and the reason for it is the first step toward understanding, and ultimate solution. The obvious thing to do is to organize the instruction so as to provide optional assignments, of varying difficulty.

(7) BELIEF IN THE SIGNIFICANCE OF ENVIRONMENT

Since the psychologists admit that it is impossible in any given case to determine the precise limits of the influence of environment, as over against heredity, it is the shop teacher's prerogative to believe in the efficacy of the kind of environment that he can provide in his shop. Every shop teacher finds abundant reasons for such faith in his own observation and experience.

There is so much uncertainty as to the present status of the individual child with reference to mental maturity, that the psychological evidence itself affords ample ground for assuming that environment has not yet completed its work. Research has shown that significant changes in the I. Q. do occur. If intelligence be susceptible of influence by experience, training, education, then certainly it is hazardous for the teacher to conclude that he has come to the end of his rope. The shop teacher may well ask that the boy be permitted to hang on even if he does nothing else in the school but shopwork.

(8) PROPER STUDY OF INTERESTS OF CHILDREN

The shop teacher should study the interests of his boys, not for the purpose of catering to them or of allowing them to determine the content of instruction, except perhaps as a temporary measure for getting command of a situation, but with a view to learning how to develop desirable types of interest. As Ellis points out, "*native ability* is to be considered as relatively fixed; *acquired skills* and knowledge change slowly; *interests* may be quite volatile." An adequate understanding of the possibilities in the realm of children's interests calls for further study.

(9) IMPORTANCE OF POTENTIAL LIMITS OF ABILITY

The present status of the individual is not nearly so important, from the standpoint of the teacher, as his potential limit of ability. Present performance is seldom an accurate guage of capacity. Even an expert seldom pushes himself to his limit. The shop teacher must visualize, and help his boys to visualize, their own inherent possibilities.

(10) DEVELOPMENT OF WORTHY MOTIVES

The fact that individuals differ widely in the motives that actuate them furnishes the shop teacher with another problem, as also an opportunity. Motives, life purposes, are doubtless to a large extent a product of environment, and hence come definitely within the sphere of influence of the teacher. The personal inspiration of the teacher, tho difficult to define in scientific terms, is nevertheless a vital force in education.

(11) TRAINING THE MIND THRU TRAINING IN MANUAL SKILLS

Since the psychologist holds that it is just as logical to argue that intelligence is the result of the use of tools, at least in part, as to say that the use of tools is the result of intelligence, it appears that "training in manual skills is one way to train the mind." According to Valentine:

Whenever intelligence expresses itself in the creation of tangible things, it does so thru the hand, demonstrating clearly a mental-motor unity in these activities. If, then, one has developed a high degree of manipulative skill, that skill must be considered a part of the total intelligent performance. Such a person does a part of his thinking with his fingers. We may say that his brain guides his fingers, but also that the training his fingers have received serves largely to guide his brain.

The psychology of this relationship may be vague, but the belief in it has been strong enough to influence modern educational practice. The individual who has neglected the manual end of his development has failed to round out his intellectual possibilities.

The significance of this point of view to the work of the shop teacher is sufficiently apparent without further elaboration.

(12) DEVELOP ABILITY TO GENERALIZE FROM EXPERIENCE

The advice of the psychologist to the shop teacher, as I understand it, is to concentrate on specific abilities, one after the other, and emphasize relationships, and thus train the individual

to use skill or knowledge developed in one set of circumstances to solve a problem produced by another set of circumstances. The term may have a certain tinge of disrepute, but some of the leaders at least believe in a kind of transfer of training. If there were not transfer of some sort, it would be impossible for one to learn how to meet a new situation. Certainly one of the chief functions of education is to develop this power of generalization that enables the individual to profit by experience.

(13) PROBLEM OF THE LOWER 50 PER CENT

If the *course* of human progress be determined by the gifted leaders of the social order, as suggested by Hollingworth, it appears that the *pace* is set by the rank and file. It is important, therefore, that society find some means of solving the problem of the lower 50 per cent. It may be admitted that the public school as now organized should not be expected to care for what may be termed the "stragglers," who should have special custodial, or at least institutional, attention. But it is unreasonable to suppose that society will continue to accept conditions as they are when it awakens to the fact that "fully one-third of our children can hardly hope to do successful work in the 7th and 8th Grades as now constituted." The manual arts departments in our schools may well share the leadership that is to point the way to needed modification of the public school program.

(14) VOCATIONAL GUIDANCE POSSIBILITIES

The shop teacher who makes a study of individual differences will be in a better position to offer intelligent counsel to his students in connection with their plans for future vocations. Studies of the results of the army tests and others seem to show some rough correspondence between levels of intellectual capacity and certain groups of occupations. These facts may be used by the tactful teacher, not to tell the individual what he may or may not aspire to, but as a means of stimulating a study of the conditions and requirements of various occupations, and the qualifications requisite to success.

REFERENCES:

Terman: Genetic Studies of Genius; 1925.
Ellis: Psychology of Individual Differences; 1928.
Hollingworth: Mental Growth and Decline; 1927.
Valentine: Psychology of Personality; 1927.
Garth: Review of Racial Psychology; Psychol. Bul., 22:6, June 1925.
Dougherty: What Changes the I. Q.?; Elem. Sch. Jo., 29:2, Oct. 1928.
Thorndike: Individuality.
Thorndike: Individual Differences and Their Causes.

The Cost of Manaul Arts Instruction

By FRANK M. LEAVITT
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No attempt is made to give a statistical presentation of this topic, although some figures are used to indicate certain pertinent trends in educational costs. For example, the United States Bureau of Education reports that the cost of public elementary and high schools per capita of population increased between 1900 and 1926, 224.6 per cent and that the per capita cost per pupil in average attendance in public elementary and high schools increased from 1900 to 1926, 169.2 per cent. This, of course, shows both an increase in cost and also an increase in attandance.

The rapid increase in high school enrollment has entailed upon many communities the necessity of bond issues. It is stated that the total annual interest charges on public debts incurred in the operation of schools amounts to nearly $150,000,000 annually, an item which is also suggestive.

The question is raised as to the possibility of analyzing the increased costs to see whether such increase is excessive for manual arts instruction. While no exhaustive study has been made, a few significant figures are given. For example, in a single city, where the grand total of all budget items increased from 1923 to 1927 approximately 33%, increases are to be noted in five special departments as follows:

Home Economics	19%
Art	27%
Music	40%
Hygiene	47%
Industrial Education	76%

NOTE: Under "Industrial Education" are included both manual training and trade training (Smith-Hughes).

Also, for the same period, the increase in total salaries was seen to be as follows:

Manual Training Teachers
- Elementary Schools—4%
- High Schools (Junior and Senior)—31%
- Vocational Schools—75%

At the same time the cost of supplies increased as follows:
- Elementary Centers—13%
- Secondary Centers—44%
- Vocational Centers—83%

During this period it should be noted that the total enrollment for the secondary schools increased 28%, while the increase in the enrollment in the vocational schools was 63%.

Whatever comfort or warning one may receive from these figures, they certainly indicate the wisdom of considering ways and means of effecting such economy as may be possible without curtailing the work or reducing its educational value.

Some questions follow:

1. Is it possible so to organize the instruction given as to enable us to handle larger classes? Obviously an increase of 10% in the size of classes will effect an equivalent reduction in the cost of instruction.
2. Can more "production work" be turned out without the loss of training value?
3. Can some of the work carry a double value because it contributes at one and the same time to the pupils' knowledge and skills usually inherent in manual arts instruction and also contributes to such pupils other knowledge supposed to be given in some other class, as, for example, in the science class, or mathematics class, or even in the gymnasium class?

Book Reviews

DIRECT CURRENT ELECTRICITY by L. Raymond Smith, McGraw-Hill Company. Price $2.00.

This book is one of a series on Industrial Physics. It is organized somewhat differently from many texts on electricity as the chapter on Magnetism is placed near the middle of the book and directly before the discussion of motors.

The first part of the texts deals with electrical terms and principles as used in the transportation and storing of electrical energy. The various types of direct current machines and apparatus are discussed as well as illustrated.

The mathematical principles involved are carefully written and sufficient examples are given to provide practice in solving them.—*G. K. W.*

Efficiency In Vocational Education

By J. C. WRIGHT, *Director,*
Federal Board for Vocational Education and
CHARLES R. ALLEN, *Editor and Educational Consultant,*
Federal Board for Vocational Education
Published by John Wiley and Sons, Inc., New York City

In this volume the authors have brought together the techniques and procedures, which they have developed by practical experience, for checking up and evaluating a program of vocational education and characteristic situations in the program. The procedure has been found effective for upgrading the weak and less desirable phases of city and state vocational education programs.

The price of the book is three dollars.

REHABILITATION

Rehabilitation of the Cardiacs and the Tuberculosis

By W. F. Faulkes, *Supv. Rehab., Wisconsin*

The rehabilitation of the cardiacs and the tuberculosis present problems that are beset with many complications which are inherent in both the patient and the attitude of the public. Inasmuch as these afflictions are very different in character, as regards the symptoms, treatment, and prognosis, it is deemed best to deal with each separately.

TUBERCULOSIS

Since the initiation of the rehabilitation service for disabled civilians, the several states have been concerned with the problem of rehabilitation of the tuberculosis. Dr. Little of New York, in referring to this problem at the Washington Conference in 1925, said, "the problem a is very baffling, widespread, deep-seated situation that controls the return of the arrested case of tuberculosis to remunerative occupations, but there is not any problem before us that is more poignant and more challenging than this. There must be some solution for it, but it will take time to work it out." I believe we know more about the problem than we did three years ago, but it is still remote from a solution in all its aspects.

It is the consensus of opinion of physicians who have studied this disease, that with the exception of a few occupations that have considerable dust, dampness, or severe physical exertion, the arrested case of tuberculosis can return with safety to his former employment, providing he will follow the rules of health that he has been taught during the process of the "cure". The return to the former job is not always an easy task for the tuberculosis. There is a fear among employers that such persons may communicate the disease to their fellow workmen. I realize that this is a groundless fear, but exists nevertheless. Dr. H. A. Patterson of the National Tuberculosis Association, says, "The fear of tuberculosis is not only exaggerated but generally misdirected. The danger to fellow workmen in shops that are not overcrowded nor unsanitary is not so great as is generally believed. If we could but make workers and employers understand that it is much better to have known, sanitorium trained, inactive tuberculosis individual in the shop than an unknown consumptive we could much more easily control the disease." The attitude of the employers and the general public must be changed from that of antagonism to one of helpfulness, if the re-instatement of the tuberculosis person is to be obtained.

Where an arrested tuberculosis person is vocationally qualified to return to a former employment, the rehabilitation procedure is simplified, and, in many instances, eliminated entirely. On the other hand, where the tuberculous case has had no prior job, or is unable to return to the previous job, rehabilitation service may be indicated. Rehabilitation should enter, only, when it is evident that assistance is necessary in order that the tuberculous person may engage in some suitable gainful employment.

No tuberculous person should be accepted for rehabilitation service until the disease has been arrested and a cure certified by a competent physician. Unless this is done, the health and cure program becomes involved with that of rehabilitation with the consequence that the latter develops into a sort of occupational thereapy and busy work instead of making any substantial contribution towards vocational reinstatement.

During the period from September, 1921 to September, 1928, an effort has been made in Wisconsin through the county and state sanitoria to work out some plan that might be helpful in returning the arrested tuberculous case some suitable occupation. Conferneces have been held with the heads of the various sanitoria, and the director and staff of the Wisconsin Anti-Tuberculosis Association. Some success has attended these efforts; but, in comparison with the orthopedic cases that have been handled during the same period, there is still much to be desired.

From July, 1921 to September, 1928, 3202 cases of all types had been registered and closed by the Rehabilitation Division of the Wisconsin State Board of Vocational Education. Of this number, 1415 or 44.2 per cent had been closed as rehabilitated, and 45.8 per cent were closed as non-rehabilitated. Included in the above group of closures were 167 tuberculous cases of which 43 or 25.7 per cent had been rehabilitated, and 124 or 74.3 had been closed as non-rehabilitated, of which number *eight* had been reported as "died". Notwithstanding the careful supervision that prevailed with this group of tuberculous cases, 25.7 per cent were rehabilitated as compared with 45.5 per cent of the orthopedic group. Most of the cases closed as nonrahabilitated, the action was taken on the basis of non-susceptibility, which indicated that the disease was again active. Again, most of such cases originated in the county sanitoria where the opportunity of "breaking-in" the patient before discharge from the sanitorium did not obtain. A study of these statistics indicates that much more cooperation is necessary on part of the health authorities before rehabilitation will begin to function effectively.

CARDIACS

There is no question but that the cardiac has a permanent disability, and is therefore eligible for rehabilitation service. Altho the prognosis is usually unfavorable, the disease has a very long duration, and during that time can work successfully at many types of occupation. Many of the diseases of the heart have their origin during the period of childhood or early adolescense, and during that time, nature often sets up a compensation that postpones the serious nature of the disease until the period of adulthood. Unless the person afflicted with heart disease has taken the precaution to prepare himself for a sedentary occupation at which he can carry on during the period of adulthood, he may find himself very seriously handicapped to carry on at any suitable employment. The rehabilitation worker very often makes contact with the cardiac when he has reached the middle period of adulthood, when the disease manifests its greatest handicap. Dr. Fairfield of Milwaukee who has given considerable attention to this group, states that a man of middle age who is afflicted with a chronic heart disease,

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TEACHER-TRAINING

Developing a Program for Summer School Professional Work in Terms of the Need of Vocational Teachers

WALTER B. JONES, *University of Pittsburgh*

THE title of this paper implies that somewhere in the United States summer courses for vocational teachers are being offered without regard for the needs of the pupils in our vocational schools. Since the title is not of my choosing, I have set about to test the assumption.

A logical beginning was to find what the nature of the summer school offerings were.

Bulletin Miscellaneous 383 of the Federal Board for Vocational Education lists fifty-six training centers in the United States and one in the Hawaiian Islands for training vocational industrial teachers.

Choosing at random of these training centers where summer courses were given, I have made an analysis of the courses offered. Next, I have stated what we have agreed at Pittsburgh should be a minimum program for training vocational teachers and have compared the present offerings throughout the United States with the proposed plan. Then, the situation as it exists is discussed in the light of what might reasonably be expected. Certain constructive proposals end the paper.

SUGGESTED CONTENT FOR TRAINING PROGRAM

Ten years of experimentation in vocational teacher training has convinced us that a state program of teacher training in vocational education should prescribe professional education in at least seven related courses or combinations, including such subject matter before electives are included. These should be considered minimum essentials. Preliminary to such study should be a command of the fundamental subjects to at least the tenth grade standard. These proposed courses are given below. The exact caption is not important, but the content is.

1. Analysis of subject matter
2. Course planning and organization
3. Methods of teaching specific subjects
5. Tests and measurements in vocational education
6. History and philosophy of vocational education
7. Guidance

Without discussing these proposals here let us see what is being taught in our summer teaching centers in vocational education.

ANALYSIS OF SUMMER COURSES OFFERED

An analysis of the offerings of eighteen training centers as described in their bulletins gives us the following facts:

Six give courses in some form of job analysis.

Six give courses in course planning.

Fourteen give courses in methods.

Five give courses in observation and practice teaching.

One gives a course in tests and measurements.

Seventeen give courses in history and philosophy of vocational education or some similar course.

Thirteen give courses in guidance.

This brief analysis shows where the emphasis is being placed and what phases of the teacher training problem are being neglected. It shows that methods of teaching, history and philosophy of the subject, and guidance are adequately provided for. But analysis, course planning, practice teaching and modern methods of testing are vicariously provided for.

ANALYSIS OF SUBJECT MATTER

In the first place it seems quite obvious that in order to be able to choose from all the material within one's field those particular parts which should be taught to any given group of students an inventory of the subject matter should be made. All schemes for curriculum construction make this step the first one. This should be without regard to any of the objectives of any particular course or any particular group of students.

Connected with such a course should invariably be one on course planning in which courses for particular groups of students should be devised by choosing from the analysis subject matter which best fits that particular group. A canvass of the teacher training courses given during the regular school year, I believe would reveal that most of them have some form of analysis. This is the result perhaps of the Federal Board's activities during the war so that at the present time in many parts of the country we have many teachers who have completed courses in analysis without having put them to any practical use. Certain vague values such as mind training and orderly thinking have been attributed to such courses, but, in my judgment, these are not sufficient reasons for offering a course in analysis which at best is only a means to an end. A more serviceable outcome is that of course planning and organization of instructional material. This should be linked up closely with such a course in order to make it function properly in the classroom.

PRACTICE TEACHING

In the second place I am very much at a loss to know why practice teaching has not been given more of a place in our pre-service vocational teacher training program and in-service summer sessions. I agree that under our present conditions it seems quite difficult to devise ways and means for adequate practice, but let us stop for a moment and see what the tendency in summer schools is in this regard. In the first place we are tending more and more to segregate our summer courses in teaching centers far away from populous centers where students are likely to be found. This condition is similar to that which existed in our normal schools twenty-five or thirty years ago; namely, to choose a lonesome and secluded spot where children would be removed from the temptations of city life, that they might study in so-called ideal surroundings. While this consideration was no doubt important adequate facilities for the professional training of teachers were neglected. Demonstration schools where methods can be tried out experimentally and teachers can be shown how to teach under actual school-room conditions are not only desirable but highly essential.

An investigation of practice teaching in vocational teacher-training centers throughout the country by Mr. Earle M. Cass at the University of Pittsburgh last year shows a rather deplorable situation. In 21 teacher training centers the range of hours prescribed for practice teaching was found to be from two to two hundred and sixteen, and for observation teaching from two to sixty hours.

Where critic teachers are used they are seldom paid for their work. Such practice teaching he finds, excluding home economics and agriculture, is obtained primarily without adequate supervision.

Our catalogues at the present time are resplendent with such statements designed to attract students as "the school is located in one of the most beautiful cities of this section;" "the university is within sight of the beautiful ocean and basks in the see breezes daily;" "the lakes and the mountains provide recreation found in no other part of the country;" and similar statements designed to allure the unwary student. But nowhere do I find a statement or even an apology for the lack of training facilities such as have been in use in our normal schools for many years or which are found in any modern medical school where at least half the student's training is provided in hospitals on real patients, not hypothetical ones. As I read the offerings of the various training centers this is the strongest indictment against them. We need demonstration schools so that "horseback may be taught by riding horses and not by correspondence."

TESTS AND MEASUREMENTS

In the third place, practically no provision is made for training in the modern methods of testing instruction which is proving so valuable in elementary and other phases of secondary and higher education. With the exception of a very few centers in vocational teacher training we have evidently considered this part of our program either impractical or unimportant. Disucssions elsewhere in this convention, however, seem to disprove the last statement. Unless this particular phase of teaching is given a more important place we may soon lose our high standing gained through such admirable work as our methods devised in foremen training conferences and other phases of leadership, such as curriculum making by job analysis procedures for which the pioneers in the field of vocational education are responsible. In order to teach properly, one should test his students to find out what they know about the subject before teaching begins. It is merely recognizing the well-known principle of individual differences which has been more talked about than practiced in education. Proper methods of making new type examinations which are reliable measures of achievement should be part of the course. Trade tests for the selection of applicants to our training courses should be devised on an objective basis, making certain that we are choosing the best trained persons in the trade. The field is rich with opportunity, yet I have heard some vocational teachers say that there is nothing to teach—that we have no content developed in education.

GUIDANCE

While it seems that guidance has become a fixed part of our program still there are some that are not thoroughly convinced that it should have a part in our teacher training field. If one stops to consider how little of our program is devoted to an analysis of the child and then realizes that the main purpose of vocational education is the training of children it seems logical that at least a small portion might be devoted to learning something about types of individuals with which we are working. Guidance is not concerned entirely with finding jobs for boys and girls. As a matter of fact many persons consider the placement function as still another task and that guidance concerns itself at least fifty per cent with analyzing, studying, and testing boys and girls that they may be better advised concerning present school and home adjustments, as well as later educational and vocational plans. The other fifty per cent of guidance may be devoted to studies of vocations and educational requirements for entrance into them.

RESPONSIBILITIES FOR TEACHER TRAINING

Unless we can provide some such rounded program as we have suggested, and put teeth enough into our state requirements to insure that such training will be obtained by our vocational teachers, we can never hope to develop into a profession worthy of attracting the best men in the industrial, agricultural, and commercial fields into our field.

Section 12 of the Federal Education Act of 1917 specifies "that the responsibility for teacher training rests entirely with the State Board of Education, that although the State Board may contract with some institution as part of its approved state plan to perform the actual work of training these teachers, the final responsibility rests with the State Board. Also that the Federal Board really controls the entire situation through its power to approve or disapprove the plan submitted by the state."

This clearly shows where the responsibility lies. Although men of the calibre chosen on the Federal Board and State Boards realize that educational programs must grow from within rather than be imposed from without in order to develop a stable educational system in keeping with our democratic ideals, nevertheless it seems to me that after ten years of experimentation we should be ready to set up and require higher professional standards without impairing the quality of the practical preparation in the men and women we are able to attract from the agricultural, commercial, and industrial fields.

SUMMARY

Briefly, then, the proposals which grow out of this brief investigation are that more attention should be paid to the development of curriculum construction based on our present analytical procedures. One cannot be too definite in planning a detailed lesson. Next, we should change our attitude toward observation and practice teaching. There should be fewer lecture courses and more teaching under supervision in well organized demonstration schools. One training center in each of our larger states could be developed in populous centers where boys and girls in sufficient numbers can be found to form a natural demonstration group for experimental purposes. If necessary, we must provide for our vocations in some other way than during the summer sessions. This does not mean, however, that one center in a state should be chosen without provision for change to other centers unless it seems preeminently suited for such work. The wishes of particular institutions are less important than the training of teachers which is the purpose for which Federal funds are provided. In the smaller states, combinations of training programs might be effected.

Preceding this provisional program, we should be in a position to require a command of the fundamentals from our teacher training applicants at least up to the tenth grade standard. This means that objective tests in the fundamental subjects should be given and training provided where shortages exist.

We must continue to stress the many phases of guidance which are now in operation, particularly the notion that guidance is a function of teaching and is brought about only by an adequate analysis and study of the pupils, as well as the vocations into which they will subsequently go.

The program outlined here is general enough to be applicable to teacher training programs of agricultural, commercial, and industrial vocational education, and should be considered a minimum requirement in our present stage of professional development. It should be the aim in summer courses to find out the specific professional needs of teachers and attempt to supply those needs in keeping with some such state program as here suggested.

Policies Governing the Selection of Candidates for the Bachelor of Science Degree in Industrial Education Including Plans for Evaluating Trade and Teaching Experience in Terms of College Credits

THE committee conceives its duty to be that of devising a functioning plan of training mechanic arts and industrial education teachers and supervisors.

A certain amount of experimenting must be done before a final plan can be adopted, therefore the committee feels that, for the present, its efforts should be confined to employed persons desiring occupational supplemental training. In dealing with employed occupationally competent students the committee will learn of the actual needs of such teachers and will be able to build a curriculum in mechanic arts and industrial education that will function definitely in these fields.

Therefore, it shall be the policy of the committee to deal with individuals and highly selected groups on the same basis as a medical clinic deals with its patients, that is; the committee will prescribe case procedure and courses on the basis of an analysis of the individual accomplishments, difficulties, needs, desires and future opportunities. The committee believes that such "prescription" courses must take precedence over the formal curriculum and all present conflicting regulations if the experiment is to be of value to the institution and those it may serve.

The committee believes that the result of the experiment will depend on the selection of candidates on the basis of job ability; cost in terms of time, effort and expense; content of the course in terms of its functioning on the student's job; teaching efficiency in terms of the use of conference, case, discussion and research methods; and personnel management in terms of the treatment accorded mature students from the time of registration to graduation.

The demand from teachers of Industrial Education subjects for extension training in the field of their profession is increasing each year, due to the influence of high school principals and superintendents of schools who encourage such teachers not only to take professional improvement work, but to secure the Bachelor of Science degree in Industrial Education.

Up to the present time the only provision for the training of mechanic arts and industrial teachers was made thru the engineering departments. The engineering curriculum does not serve the purpose of training shop teachers, because the policies of the Federal Board for Vocational Education require trade teachers to have five years experience in the trade before they may be permitted to teach that trade or subjects relating to the trade. Further, our school administrators have discovered that many of their best shop teachers are those selected from the trade. Men with five or more years of trade experience have seldom had the opportunity to get a college education, although in many instances they have had one or two years of college work.

Since the training received in learning a trade is recognized by school authorities as producing excellent teachers, it would seem that this fact should be recognized by this institution and that something should be done in the way of evaluating trade experience in terms of college credits.

The college is legally and morally bound to offer purposeful training, both to mechanic arts and to trade teachers, under;

1. The second Morrill Act.
2. The State Acceptance Act of the second Morrill Act.
3. The Nelson Amendment.
4. The State Acceptance Act of the Nelson Amendment.
5. The National Vocational Education Act.
6. The State Acceptance Act of the National Vocational Education Act.

Under these acts the State Board of Agriculture is "authorized, empowered, and directed" to provide this training.

Our immediate problem is that of devising a cooperative plan that will enable the Department of Education, the Department of Mechanical Engineering and the Department of Economics and Sociology, to participate in the determination of subjects required for graduation for students specializing in mechanic arts and industrial education. In general, the problem involves:

1. Giving careful consideration to admission requirements under a standardized plan such as is used by many institutions where mature students are admitted. (A great majority of the cases will be high school graduates but a few exceptions will need special consideration.)
2. Dove-tailing college requirements with entrance subjects and permitting equivalent training to be substituted in certain qualified cases.
3. Selecting high class students who are already in minor executive positions in the public school system or who are eligible for immediate promotion, and who have demonstrated that they have outstanding ability in the field of industrial education.
4. Giving special attention to courses required for graduation on the basis of industrial education teaching rather than on the basis of engineering subjects now offered in the college.
5. Devising a plan which may operate on a functional basis. Permitting students to take certain courses now offered in other departments where it is recognized that desirable training for the accomplishment of the objective is found.
6. Arranging a flexible plan that will permit the mechanic arts students to elect a heavy schedule of shop subjects while trade teachers (those coming to us with trade experience) may elect a heavy program of related shop, social and economic and industrial education subjects.
7. Establishing additional courses in the near future that are necessary for the well rounded training of mechanic arts and industrial teachers.

The most difficult problem is that of evaluating practical experience in terms of college credits. In many insitutions mature students receive college credit for practical experience on the basis of the recommendation of the department heads. It seemed to the committee that such a plan lacks stability and must, of necessity, involve considerable guess work. For this reason the committee adopted several formulae that could be used in rating shop experience, research experience, and administrative experience in industry and

schools. After a careful study of the experiences of a number of typical cases, the following hypotheses were established by the committee:

1. Approximately one-tenth of an individual's time spent in industry is assumed to be devoted to learning the trade, while nine-tenths of this time is spent in practicing the trade. The exact amount of credit is to be determined by the committee from a study of the achievements of the student.
2. In research work in industry one-fifth of the time may be considered to have educational value.
3. For foremanship experience in industry or supervisory experience in the public schools, one-fifth of the time may be rated as education.
4. Two credits in practice, observation or supervised teaching will be allowed for each year of successful teaching experience secured since 1920. A maximum of ten credits will be granted for teaching experience.
5. Under existing regulations of the Faculty Council, 20 credits may be allowed for not less than six months of enlisted World War experience providing the candidate received an "Honorable Discharge."

1. a. An individual doing satisfactory work in industry puts in approximately 2,400 hours per year at work, assuming an 8 hour day and 50 working weeks during the year.

An individual doing satisfactory shop work for credit in college spends 48 actual hours in the shop for one credit. One-tenth of the number of hours spend in production work in industry divided by 48 hours which is required for one school credit, equals the number of credits earned by the individual thru practical experience in industry.

2. a. One-fifth of the number of hours spent in research work in industry divided by 48 hours, equals the number of credits to be allowed for such experience.

3. a. Foremanship and research experience in industry and supervisory experience in the public schools require qualities of leadership, the exercise of judgment and constant planning and study. For this reason leadership experience should be rated on the basis that one-fifth of the time spent in such positions may be credited as education.

4. a. Teaching experience should be rated on the basis of two credits for each year of successful work. Credit allowances for teaching experience are based on the fact that such experience is equivalent to practice teaching, observation teaching or supervised teaching as carried on in the college. The committee feels that the credit allowance is low for this experience, but this may be justified on the ground that many shop teachers begin to teach without any preparation for teaching, and therefore they do not profit as much from the experience as teachers who have had some professional training prior to their teaching experience.

5. a. Credit for World War experience has already been ruled upon by the Faculty Council, 20 credits being allowed for such enlisted experience.

In some instances where apprentice training is in effect in industry, or where the occupation required considerable research work, it may be necessary for the committee to increase its rating for education value.

The committee believes that this is a very conservative estimate of the training value of practical experience, and of industrial research and supervisory or administrative experience. Even higher ratings might be justified on the ground that experience, in any occupation having definite occupational standards that are equal to or above the standards required in shop training carried on within a school or college, is education.

In general the committee proposed to allow:

1. Five credits for each year of successful trade or industrial experience.
2. Two credits for each year of successful teaching experience—maximum 10 credits.
3. Ten credits for each year of successful research experience in industry or public schools.
4. Ten credits for each year of supervisory experience in industry or supervisory experience in the public schools.
5. Twenty credits for enlisted World War experience.

The committee recommends that this plan should be tied up with additional college work, and should be operative only to those who are mechanic arts or trade and industrial teachers, or administrators in our public school system, who are doing outstanding work, and that the plan should not be operative for those who have merely had years of industrial experience.

The following questions, with their answers, indicate the problems considered, and the policies that were adopted by the committee in evaluating the experiences of twelve candidates:

1. How much credit should be given for shop experience?

A majority of the cases coming to the attention of the committee served a four year apprenticeship in learning a skilled trade. The apprenticeship training plans carried on in industry offer more intensive training than can be secured in any institution. It is true that the training period is long drawn out, ranging from three to six years, but in any case it is decidedly worth while training, and sets the standard for shop training that is carried on in the average college engineering department. The committee was of the opinion that fully 20% of the time spent in any apprenticeship training program is of educational value, however, for the purpose of developing the very best teaching in trade and industrial schools, it was agreed that only 10% of the time spent in industry should be assumed to have educational value.

2. What credit should be allowed for research work of a technical grade carried on in industry?

One of the cases coming to the attention of the committee carried on an extensive piece of research work for one of the largest corporations of the west. This work was of the same character as research assignments that are usually made for graduate engineering students, and of course was much more extensive. In many institutions the Master's degree is granted for an amount of research work of technical grade that is far less in scope and importance than this candidate's record indicates. Again the committee recognized that the educational value of this work was very high, therefore, it was agreed that 20% of the time spent in research work in industry should be considered as work having educational value equivalent to college training.

3. How much credit should be allowed for foremanship and executive work in industry:

Twenty per cent of the time spent in leadership or executive work in industry may be considered of educational value, therefore 10 credits may be allowed for each year of such experience. (See question 5 below).

4. How much credit should be allowed for teaching experience?

Teaching experience should be rated on the basis of two credits for each year of successful work. Such experience is, in the opinion of the committee equivalent to supervised teaching, practice teaching, or student teaching work as is usually carried on in college.

5. How many credits should be allowed for administrative experience in the educational field?

Administrative experience in any field calls for certain qualities of leadership including ability to handle men, inspecting, supervising and judging men, and materials and equipment; analyzing situations;

meeting with committees of industrial executives, business men; addressing group meetings; conducting teachers meetings; and formulating and executing policies, therefore the committee feels that ten credits may be allowed for each year of administrative experience in the educational field.

6. What precautions should be taken to avoid errors in granting equivalent credit for practical or administrative experience and for teaching experience?

Indisputable documentary evidence should be filed with the candidates application for a degree. In cases where practical experience cannot be verified due to changes in business management, the committee reserves the right to use one or more trade tests, to have the candidate examined by an expert in the trade of which he claims to be a master, to size up the candidate's ability on the job or by other means of investigation, determine that such practical experience shall be credited. In all cases letters of recommendation from employers in the trade teaching fields shall be submitted by the candidate.

7. Should a final limit be placed on the number of credits that will be allowed for practical experience?

Of the cases considered the maximum number of credits allowed for trade experience is 46¼ credits. The maximum number of credits allowed for teaching experience is 14 credits. The maximum credits allowed for administrative experience is 60 credits. The committee realizes that it will be necessary to establish definite maximum standards, but until more experience has been gained in dealing with these cases, it does not feel justified in establishing a definite maximum.

8. Should a resident requirement be imposed on these candidates?

Three summer school terms of 5½ weeks each in residence work will be required of all candidates receiving degrees under this plan. While a definite residence period is not required by the State Board of Agriculture at this time, the committee believes that this minimum residence requirement should be imposed in order that members of the faculty may become fairly well acquainted with the candidates and make sure that the degrees shall not be granted to unworthy candidates.

9. How recent should the candidates trade or teaching experience be in order that it may be rated under this plan?

Equivalent credit will not be allowed for trade experience that preceeds 1914 or teaching, or administravive experience, that preceeds 1920. This requirement guarantees modern and up to date experiences in industry and in teaching.

10. Should definite age limits be established?

Candidates between the ages of 25 to 45 years will receive consideration under this plan. Cases will be recommended to the council and will be dealt with on their merits by that body, if not within the age limits.

11. What prerequisite high school training should be required for college entrance under this plan?

All of the original cases considered by the committee are high school graduates meeting the college requirements. The committee believes however, that a few students should be admitted under existing rules allowing mature students to enroll even tho they may not have had certain prerequisite courses in high school.

12. Who should make up the schedule of the candidate?

A committee representing the College Administration, the Department of Education, the Department of Economics and Sociology, should determine the schedule of all candidates. These departments offer courses designed especially to prepare men for trade teaching and for the improvement of teachers in service.

12. a. What factors should govern the selection of subjects in the students schedule?

Past experiences of the individual and analysis of the requirements of the job he now holds or is preparing to assume should govern the selection of subjects required for the degree.

13. How should the students be selected?

There is a consistent demand from superintendents of schools for recognition of excellent teachers within the school system. Therefore, students can be selected on the basis of the recommendations of employers. Only men and women seeking additional college work who are already in school service as teachers or supervisors and who are successful in their work will be admitted under this plan. A personal interview with the committee will be necessary before the candidate will be recommended to the council for approval.

14. How can we make sure that the individual recommended to us is a worthy candidate?

In all cases letters of recommendation from employers and letters verifying the trade and teaching experience should be submitted to the committee. This will serve as a basis for selecting students. After the selection has been made the student is required to fulfill the residence requirement established by the committee. If during this period it is discovered that the candidate is not worthy he may be rejected.

15. How can we prevent an excessive number of students from making application for college credit for practical experience?

This committee is dealing only with candidates who are now supervisors or teachers of shop subjects under public supervision and control. The number of shop teachers between the ages of 25 and 45 whose work is unusually good and whose employers will grant recommendations for degree work, is limited. The committee believes there is little danger of an excessive number of applications that will meet the requirements set up in this plan. It will be remembered that the plan is devised to enable the State Board of Agriculture to fulfill its legal and moral obligation to train mechanic arts and trade and industrial teachers, and this alone, is its justification.

16. Will not this plan excite practical men from other fields to demand credit for practical experience in agriculture, home economics, commercial subjects, etc.?

Only experience can answer this question. It is a well known fact that production methods in industry and in the skilled trades are so well standardized and are of such high standards that they become the basis of measuring the standards of all school shop training. The committee on industrial education feels that since trade standards are so definitely established there will be little danger in granting college credit for equivalent educational experience secured in industry. In cases where an occupation is not standardized, it would be impossible to ask equivalent college credit for the experience.

17. Will credit toward the Master's degree receive consideration under this plan?

No. This plan is intended to function in the undergraduate school only.

18. Why is it necessary to grant college credit for industrial experience? Why not require these students to earn the full 160 credits for the Bachelor of Science degree?

Their industrial experience is the same in quality and more extensive in quantity than the experience gained from shop courses offered in the average College Engineering Department. This experience is a part of the required preparatory training of Trade and Industrial teachers. To have them repeat it in school shops would be a waste of time and money. Furthermore, the present curriculum does not offer enough subjects in this field to make it possible to earn a degree in Industrial Education.

The committee recognizes, too, that shop training in any institution is not designed primarily to develop expert mechanics, whereas the entire Trade and Industrial teacher training program concedes that this is the first requirement of a successful instructor in that field.

These students are all mature men who know how to select purposeful courses. They will not take subjects that serve no useful end in the line of their vocation.

All of their training must be completed in summer session work. It would take 20 years at the rate of 8 credits per summer term to earn the full 160 credits.

If a new curriculum could be established by scientific job analysis methods, we would still be confronted with the problem of assisting employed men to comply with the degree of requirements established by many Boards of Education. It seems best, therefore, that equivalent training should be recognized, regardless of how it may have been secured. Accomplishment is the measure of a man's ability, therefore the committee believes that equivalent training can be largely determined by the success of an individual in his present vocation.

The committee on awarding degrees in Mechanic Arts and Industrial Education, will adhere to the following procedure in dealing with the cases coming to its attention:

1. On receipt of a candidate's application, a letter will be forwarded to the Registrar, calling attention to the fact that the applicant claims to have earned college credits in certain institutions, and requesting the Registrar to secure official transcripts verifying such claims for the committee.
2. The case will be brought before "the committee appointed to prescribe the conditions of awarding degrees in Mechanic Arts and Industrial Education." At this time official transcripts covering college work completed in other institutions, and verification letters covering practical experiences of the candidate will be presented to the committee. The committee will take action on the case, and make its recommendations thru the Dean's office to the council.
3. The council will take action on the case, and make its recommendations to the State Board of Agriculture.
4. The State Board of Agriculture will take action on the case, and will authorize the Dean's office to notify the applicant of the final action taken by the State Board of Agriculture.

The committee realizes that this plan is not complete and that it is far from satisfactory but we know that progress cannot be made by removing all objections before beginning any new project.

The strategy of our plan includes three distinct steps or stages. The policies outlined herein represent stage 1 of the procedure. Stage 2 will consist of a series of conferences with students and investigations of the teacher training situation with a view toward reaching a final satisfactory plan which will comprise stage 3 of our study.

Committee:

1. Trade and Industrial Teacher Trainer, Chairman.
2. Head Department Mechanical Engineering.
3. Head Department Economics and Sociology.
4. Head Department of Education.
5. Dean of the Faculty.
6. President of the College.
7. The Registrar, Secretary.

H. A. Tiemann, *Chairman.*

New York State Industrial Scholarship

By EUGENE D. FINK
Supervisor of Industrial Teacher Training, N. Y. State Dept. of Ed.

THE New York State Industrial Scholarship law was enacted in 1920. The sum of $50,000 was appropriated to provide for 25 scholarships of $2000 each to properly qualified persons for their support and maintainance for one school year at the industrial teacher-training department of the New York State Teachers College at Buffalo. The appropriation later was reduced to $25,000 of $1,000 for each scholarship. In 1925, the law was further amended to include women as applicants.

The amendments to the original law were made at the suggestion of the State Education Department. The New York State Federation of Labor sponsored the law and was largely responsible for its enactment.

Attendance upon summer school or evening vocational teacher-training classes up to this time were the only opportunities offered to obtain training for vocational teaching. Extension training must necessarily be limited to large cities and summer school attendance has its limitations because that time is the busiest season for many trades. It was therefore felt that one full year of training under favorable conditions would produce better results than the existing method and, at the same time, afford an opportunity for training to all qualified men and women of the state, instead of only for those living in or near the extension training centers.

Persons eligible for appointment to scholarships. The regulations prescribed by the Regents of the University for appointment to scholarships are as follows:

1. Trade and industrial experience. Men must have had 5 years or more of journeymen experience in a trade, industrial or technical occupation. Women must have had 5 years' experience of which not more than one shall have been as an apprentice.

2. Education. Satisfactory completion of the work of the eighth grade and one full year of work in an approved high school or its equivalent.

NOTE: Architectural and mechanical draftsmen must be high school graduates.

3. Age. Men should preferably be not less than 23 or more than 38 years of age. Women should be not less than 21 or more than 35 years of age.

4. Citizenship and residence. A citizen of the United States and a resident of the State of New York for one year, preceding date of application.

5. Health and character. Of good moral character and in possession of good health.

Selection of Scholarship Holders. On February 1st of each year or as soon as the legislature appropriates the necessary funds, circulars are distributed throughout the state to employers, trade organizations, industrial concerns, schools, trade magazines and newspapers. These circulars include the list of trades in which scholarships are offered, eligibility requirements and the method of applying. The list of trades is determined by the future probable demand for trade teachers as nearly as the State officials can predict. For example, machinists have been excluded for the past year because there are enough qualified men available to fill vacancies for the present. The trade of jewelry manufacturing was included last year to meet the need for teachers next September in this field.

Between 400 and 500 applications are usually received, of which number about one-half are eligible. Each candidate must submit a detailed statement concerning his education, trade training and experience, a certificate of health, the names of three persons who are able to testify concerning his practical ability and moral character, and a photograph. His statements are checked in the State office by writing to schools and places where he has worked. All data pertaining to each candidate is placed in a folder, together with rating sheets for the examining committee's consideration.

The examining committee is appointed by the Commissioner of Education and consists of two representatives of the Associated Industries of New York State, two representatives of Organized Labor and two representa-

tives of the State Department of Education.

Each candidate for a scholarship is rated separately by each of the six examiners as to education, trade training and trade experience. The ratings are then added and divided by six to obtain the average.

The next step is to establish what is called a preliminary merit list for each trade. This is composed of the names of men and women who receive the highest ratings and who look like good prospects. The total number of names found in this list is from 125 to 175. These people are notified to appear at designated places in various parts of the State to be interviewed by two or three representatives of the State Department of Education for rating on speech, personality and appearance.

The interview affords the best opportunity to check still further statements made by the candidate in his application. He is encouraged to talk about his work and his reasons for wishing to become a teacher. He is told about the training course, the chances for securing employment, the wages and informed that during the first week of school he must be ready to take a written and practical examination pertaining to his trade. He agrees to relinquish the scholarship in the event of unsatisfactory results in the examination.

The personality ratings are added to the previous trade and education ratings for the final rating, on the basis of which the scholarships are awarded. One or more names are taken from the head of each merit list, the number depending on the demand for teachers in the various branches and on the qualifications of candidates. It frequently happens that scholarships are not awarded in certain trades because of low rating.

SUMMARY OF RESULTS

1. The following table shows the distribution of scholarships by trades, from the time the law was enacted up to and including the class admitted last September. It will be noted that the number in attendance each year exceeds 25, which is the number of scholarship awards. This is due to the fact that from one to four each year took the course at their own expense.

2. The records of Buffalo State Teachers College show that 80% of the graduates are now teaching. Of this number 8% are teaching outside of the State. This does not include graduates who returned to industry and are now engaged in apprentice training in a full or part-time basis.

3. About 5% returned to industry because of unwillingness to accept teaching positions at the initial teaching salary or becuase industry offered unusual inducement in the way of salary or position.

4. About 10% are not teaching because of inability to secure a position (usually in special fields such as baking or welding) or because of unwillingness to move their families to cities where vacancies occured.

5. About 5% prove to be unfitted for teaching.

6. The mean age of the classes admitted, excluding the class now in attendance, is 28½ years. Trade experience averages between 7 and 8 years beyond apprenticeship. The education of these graduates was as follows:

1 yr. high school or the equivalent	79
2 yr. high school or the equivalent	46
3 yr. high school or the equivalent	24
4 yr. high school or the equivalent	45
One or more years of college	6
	200

CONCLUSION

The scholarship plan does not induce men and women to take the teacher-training course who are in the $3000 to $4500 salary class, in such fields as photo engraving, printing, costume design, etc. Exceptions have been found where a man's wife is a school teacher or where an inducement in the way of salary and position is guaranteed at the conclusion of the course. It is doubtful if $2000 scholarships instead of $1000 would materially change this situation.

Men and women who are willing to break up their homes and go to Buffalo for a year will accept positions in small towns. This is one of the best arguments for the scholarship plan. Those in attendance upon the extension teacher-training centers in large cities such as New York, Rochester, Syracuse and Buffalo rarely will consent to move to a smaller city. Consequently, a considerable proportion of the graduates will be found in cities of from 15,000 to 100,000.

There are several perplexing administrative problems in connection with the appointment of scholarship holders which have not been solved. The first is, that the advertising does not seem to reach the best qualified men and women throughout the State. Union tradesmen with steady jobs and good wages do not attend meetings

Distribution According to Trades of Persons Who Held Industrial Scholarships in New York State from 1921 to 1926 Inclusive

TRADE OR TECHNICAL OCCPUATION LICENSED TO TEACH	1921	1922	1923	1924	1925	1926	1927	1928	1929	Total
Architecture	2	1			3	1				7
Auto Mechanics	3	2	5	3		1	6	5	5	30
Baking	1		1				1			3
Bricklaying		1		1	1	3			1	7
Carpentry		3	4	1	4				2	14
Cabinet Making				1	1		2	3		7
Clothing Design (Men)								1	1	2
Drafting (Mech)	2	3	2	3	1	3		2	1	17
Electricity	5	5	6	5	4	1	4	3	1	34
Foundry							1			1
Industrial Chem.	1									1
Instrument Making		1								1
Jewelry Manufacturing									1	1
Lithography							1		1	2
Machine Shop	5	6	6	6	6	5	1	2		37
Painting and Decorating		1			2					3
Patternmaking	3	1					3		2	9
Plumbing							1	1	2	4
Printing	2	3	3	2	3	4	3	3	2	25
Sheet Metal	1	1	2	2	1	1	1	1	3	13
Shoe Manufacturing								1	1	2
Textile Design	1		1							2
Weaving							1			1
Welding (Acetylene)								1		1
TOTAL (MEN)	26	28	30	24	26	19	25	23	23	224
Costume Design (Women)						2		2		4
Power Machine Operating						1	1	1	1	4
Novelty Work									1	1
Millinery						2				2
TOTAL (WOMEN)						5	1	3	2	11
TOTAL (MEN AND WOMEN)	26	28	30	24	26	24	26	26	25	235

regularly, nor do they see the news items about the scholarships that appear in the newspapers. This is especially true in the large cities. The result is that a large number of applicants come from the ranks of those who are not well qualified or are out of a job and have to be eliminated by the committee.

Second, no satisfactory method of testing the applicant's trade ability has yet been devised. Also, the plan of having schools certify as to education is not wholly satisfactory. Progress is now being made in the matter of the practical examination and perhaps the best check on the education of candidates will be found by devising a series of intelligence tests. The chief difficulty lies in the fact that the entire job must be done in a space of about three months, or after the annual appropriation bill for the next fiscal year is signed, and that applicants live in all parts of the State.

There is a large demand for the graduates of the course. About one-half of the group is placed prior to graduation.

From the standpoint of the State, it is felt that cost of the program and the work of selecting the group is justified on the grounds that it makes available each year trained teachers to meet the demand in cities where trade preparatory and apprentice training classes are being started.

The first year of the life of a vocational school is always the hardest. Unusual administrative, organization, and teaching problems have to be faced due to the fact that the school is being scrutinized by all interested parties, and occasionally by those seeking to discredit the work. Such situations call for trained teachers who bring to the job the benefits derived from their pedagogical training and practice teaching in a city where the work is in full swing in every branch of vocational education.

Poor teaching is usually the cause of failure of any vocational class. Conversely, wherever trade education has been an outstnading success it has been largely due to the good work of the teaching staff.

The plan of awarding scholarships in order to obtain teachers in the various fields of vocational education has completely justified itself during the 8 years it has been in operation. Each year shows a few outstanding men in the scholarship group who give promise of becoming future leaders in this field. Among the graduates of the group who have already made notable success are a state supervisor of industrial education, a number of vocational school principals, three state normal school instructors and others who are well on their way to administrative positions.

Rehabilitation of the Cardiacs and the Tuberculosis

Continued from Page 29

cannot continue at regular employment for a longer period than two or three weeks. The nature of the disease necessitates frequent and short lay-offs, and consequently irregular rather than regular employment is indicated in most of these cardiacs included in the adult class.

Wisconsin has done little with this group as is evident by the following figures. Since 1921, only 34 cardiac cases have been registered and closed, and of this number *four* or 11.8 per cent have been closed as rehabilitated. Of the above four cases, only one received any training, and his employment record has been irregular. *Thirty* or 88.2 per cent were closed as non-rehabilitated, and the reason given for each that the person was non-susceptible. Heart disease has already taken the lead as the greatest single course of death in this country. It is also a handicapping malady, but, it is the opinion of the speaker, that this is a problem of the public schools, and the health department, in cooperation with those in charge of vocational guidance.

Both the tuberculous and the cardiac present stupendous problems to the rehabilitation divisions in the various states. Much has been done, and possibly much more may be done, but, more money must be made available before the various rehabilitation departments can take on any greater activity in regard to these problems.

Industries' Interest in Training Apprentices

JUSTIN P. ALLMAN

About ten years ago, when the wallpaper manufacturers and wholesalers began to take serious notice of the trend of the industry which I hesitatingly admit was downward at that time, some few of us charged ourselves with the responsibility of survey and study as to the reasons for such deplorable conditions. After many conferences, we concluded that numerous causes contributed to the then existing conditions, principal among them being the need for better wallpaper and likewise the need for more mechanics of the better kind to apply the better wallpaper.

In line with the promises on the part of the manufacturers to see to it that we were to have better wallpaper—better in design, better in color and better in quality—our Local Association undertook to apply itself to the making of better mechanics.

At the start we proceeded with the old and tried methods of apprenticeship to skilled mechanics, but we did not then have the important auxiliary of vocational training in the public schools. Fortunately, later on, with the active cooperation of Mr. Bauder, Mr. Neiwig, Mr. Jenkins, and others, we were given the advantage of intensive training by competent teachers, in addition to our plan of ordinary apprenticeship.

It was our good fortune to secure the services of Mr. Anthony Ervin as the first instructor. To these sincere workers we are sincerely and gratefully indebted.

The old adage that "a chain is no stronger than its weakest link" applies forcibly to all industries. An industry must hit on all cylinders in order to be progressive. Manufacturers, wholesalers, retailers and educators as well must take a sincere and cooperative interest in their objectives as a whole to produce good results. What affects one link in the chain must of necessity affect all.

There is no advantage in making beautiful wallpaper if we have not properly trained mechanics to hang it. Just as we require the artist to conceive and work out designs and colorings, so do we need the workman with love of his work to secure the best effect of those designs and colorings upon the wall.

The perfection of mechanical skill is the goal of vocational training, yet just as essential is the by-product of love of his art of vocation. He who does not love his work can never make a success of it. This is true of every vocation or profession.

The responsibility of vocational teachers is not alone to perfect their students in the art of the craft, but to instill in their pupils the love of the art and the desire for excellence. This is probably more true of the paperhanger than in most other vocations, for the trade of hanging wallpaper is but a stepping-stone to that of decorator, and the possibilities of advancement in the field of decorating are limited only by the capacity of those engaged therein. A young man properly trained as a paperhanger needs only ambition, skill and a faculty for artistic combinations of color and design to rise to the heights of his industry and to achieve not only material wealth, but that which is far more desirable—a name and a place in the world.

Now, as a clear demonstration of the interrelationship of vocational training and industry, permit me to cite a few facts.

About thirty years ago the wallpaper manufacturers and wholesale distributors were concerned chiefly with mass production. In their desire for volume they allowed the artistic side of their commodity to be neglected. There

followed a gradual process of deterioration which eventually reflected itself in an almost entire disappearance of good design and color in wallpapers of nearly all American manufacturers. Be it said to their credit, there were several manufacturers who did not sink into the levels applying to most of those engaged in that branch of the industry.

In natural sequence, it took but little time for good decorators to lose interest in the product. For fine decorative schemes, master decorators began substituting other materials for wallpaper. As the artistic quality of the product lessened the need for skilled mechanics likewise decreased, and as a consequence the vocation of paperhanging began to be abandoned as a skilled labor. Wallpaper during that period was considered a cheap commodity and relegated to the care of untrained workmen and, aye, even to bill-posters. The desire to excel in the craft seemed to be lost. The master workman was no longer interested. The result of his labor brought little joy and no thrill to his craving for achievement in the completed effect. Thus a fine apprenticeship that had previously been handed down from father to son was largely abandoned as a worthwhile trade.

The deterioration of design and color in wallpaper led to the making of many plain papers and the usage of plain papers, and there was no need for skill nor incentive for effort on the part of a real decorator. In a recent issue of the "Woman's Home Companion", Hope Harvey, editor of Interior Decorating Department, said: "The prevailing vogue of plain walls during the last few years accustomed paperhangers and painters to the use of the paintbrush to such an extent that upon a revival of wallpaper hanging it has been found that there are few men in New York City who have retained the knack of hanging paper in a clean manner with perfectly abutted seams." From these observations you must deduce that industry and vocational training must go hand in hand.

Those engaged in industry may be divided into three groups. In the first group we may classify those who may be properly likened to highwaymen or to their replicas, disguised within a cloak of fine raiment and wearing, figuratively speaking, silk hats. They are those who prey upon the industry in which they ply their endeavors. They take everything possible out of the industry and utterly fail to put anything into it. They never have a constructive thought, nor will they go along with the honest efforts of others in constructive betterment of conditions. Happily, those composing this group, though viscious, are few in number.

Then there is a second group and by far the largest group in industry—the average man, who does take out of his industry or vocation all that it will bring him, but who also puts into it some effort toward its betterment. This group is composed usually of honest citizens who have the desire to be fair and progressive, yet, mayhap, lack the qualities of leadership and often foresight. It is, however, from this group, by reason of our plans of enlightenment and the spirit of cooperation evidences, that we draw our leaders and our real workers. They are muscle and sinew to our industry. While seldom do they stand out by comparison, yet usually they are ready to cooperate and to give of their time and their money in any movement for the common good and welfare of the industry in which they are engaged. This group merits our encouragement at all times.

And now we come to the third group in industry. Some may call them dreamers, idealists, or other kind appellations. I choose to classify them as prophets, scholars, leaders. Usually the members of this group are those men who give all that is in them for the good of their vocation or industry and get little in return, often not even fair compensation for their invaluable service. In this group we find the men who are gathered here—educators—and what a pity it is that their labors are often so little appreciated. Without them the whole structure of industry would fail, for it is they who are the real builders. It is they who bring into action and nourish the potential possibilities of the youth of our country, and it is they who patiently and laboriously work by day and often dream by night to make of some boy or young man a leader in his chosen field of endeavor. And they do all this not for the monetary reward, but for the love of service—for the satisfaction of their inner soul, of accomplishment not of their own success, but the success of their pupils or, may I say, disciples. Their glory comes from the accomplishments of others, thereby reflecting the worthiness of their own teachings. And these educators are content with that result. They care not for the glamor or the limelight nor for riches in worldly goods, but how rich may be their reward in the gratitude of those whom they have taught and helped.

And what does industry owe to them? It is too difficult to estimate, so I shall not even attempt it. Suffice to say, industry will forever be their debtor.

In the beginning of my remarks I pointed out some of the conditions that existed in our particular industry some thirty years ago. Those deplorable conditions might have been bettered materially if at that time the importance of vocational training had been fully recognized.

Vocational training by competent and interested teachers promotes incentive in our youths not only to learn and to master a trade, but to love it, and once those engaged in any vocation love their work, never will that work be permitted to deteriorate in the arts or crafts of men.

Industry's interest in vocational training is vital. It is fundamental. Without mechanics to properly apply the products of any manufacturer or distributor, the need for those products must diminish and, mayhap, cease entirely. The ultimate consumer will find a substitute—better or worse—but that ultimate consumer will never be content with any product, no matter how artistic or how well made, if denied the full value of that product in its final application to the usage for which it is intended.

While applicable to all industries, this is particularly true of the wallpaper industry—wallpaper being the essential product to be considered by the decorators' section of this convention. I take it that it is the intent of this convention to stimulate industry's participation in the promotion of vocational training. To accomplish this we must have the wholehearted support of all—manufacturer, wholesaler, retailer and decorator, not forgetting the educator. It is by virtue of having conventions of this kind that we can state our views and listen to those of others; learn to give here and take there; to adjust ourselves to new and changing conditions as they develop in the conduct of our business affairs; to help bring about concerted action in the things that are worth while and necessary; to discard obsolete methods and inject new spirit and new life in our chosen vocations, and to help others to apply the tried and efficient methods disclosed in these forms in the conduct of their own lives.

Contributors to Legislative Fund

July 3, 1929.

To Contributors to the A. V. A. National Legislative Fund:

During the period when the campaign was in progress to secure necessary funds for the promotion of the George-Menges-Reed Bill, the Legislative Finance Committee promised a report to the contributing states on the completion of the campaign. A general report was made at the A. V. A. business session at Philadelphia. Since the Finance Committee was in reality a sub-committee of the National Legislative Committee, this written report has been delayed until such time as the Legislative Committee might meet and decide on the form which the report should assume.

No attempt is made to assign definite credit to any organization or to any Division of Vocational Education within a state. In many cases, such information is not in the possession of the Finance Committee. State Vocational Associations, Divisions of Vocational Agriculture, Home Economics and Trades and Industries, interested individuals, and the Staff of the Federal Board for Vocational Education are represented in the list of contributors. The nation-wide response to the call for financial support can be noted from the fact that 43 states and the Federal Board Staff made contributions to the Legislative Fund.

The Finance Committee takes this opportunity to express its very deep appreciation not only for the very substantial contributions but for the cooperation received from leaders in the different states who assumed the initiative in collecting funds. Every contribution was an evidence of faith in the cause of vocational education.

The Legislative Finance Committee takes much pleasure in submitting the following report of contributions by states:

AMERICAN VOCATIONAL ASSOCIATION
LEGISLATIVE ACCOUNT
REPORT OF CONTRIBUTIONS
August 8, 1928 to February 27, 1929

STATE	AMOUNT CONTRIBUTED
Alabama	$100.00
Arizona	38.00
Arkansas	62.00
California	68.50
Colorado	10.00
Connecticut	5.00
Delaware	25.00
Florida	70.00
Georgia	100.00
Idaho	25.00
Illinois	286.00
Indiana	100.00
Iowa	46.00
Kansas	100.00
Kentucky	100.00
Louisiana	50.00
Maine	50.00
Maryland	42.50
Massachusetts	5.00
Michigan	135.00
Mississippi	50.00
Missouri	75.50
Nebraska	81.13
Nevada	10.00
New Jersey	100.00
New Mexico	15.00
New York	100.00
North Carolina	100.30
North Dakota	33.00
Ohio	100.00
Oklahoma	41.00
Oregon	40.00
Pennsylvania	110.54
South Carolina	121.00
South Dakota	21.06
Tennessee	100.00
Texas	100.00
Utah	28.50
Virginia	50.00
Washington	30.50
West Virginia	28.50
Wisconsin	180.00
Wyoming	36.00
Federal Board for Vocational Education	120.00
TOTAL	$3096.03

PAUL W. CHAPMAN
C. W. MILLER
RAY FIFE,
Legislative Finance Committee.

Approved:

L. H. Dennis, Chairman, National Legislative Committee.

R. L. Cooley, President, American Vocational Association.

Certification of New York Teachers

OAKLEY FURNEY
Chief of Industrial Education Bureau, New York

REGENTS RULE

81. Issuance and classification. The Commissioner shall make regulations governing the training and certification of all persons requiring certification employed in the public schools of the State. The certificates issued pursuant to such regulations shall be of the following general classifications:

1. Certificates for administrative and supervisory positions.
2. Certificates to teach in secondary schools.
3. Positions Certificates to teach in elementary schools.
4. Certificates to teach special and vocational subjects.
5. Certificates for school librarians and school library workers.

In addition, the Commissioner may issue temporary licenses valid for not to exceed one school year. A second temporary license shall not be issued to the same person except on completion of approved additional training.

CERTIFICATION OF VOCATIONAL TEACHERS, SUPERVISORS AND DIRECTORS

1. Certification of vocational teachers.
2. Certification of teachers of vocational and educational guidance.
3. Certification of directors and supervisors of vocational education.

PERIOD OF VALIDITY OF CERTIFICATES

1. Permanent vocational certificate—life.
2. Limited vocational certificate—valid for 3 years and not renewable.
3. Evening or extension vocational certificate—valid for three years, renewable for three year periods, only where holder teaches for less than 15 hours per week.

ISSUANCE OF CERTIFICATES

1. May be earned.
2. Otherwise only issued upon request of a superintendent of schools after the applicant is assured of a position to teach.

VOCATIONAL TEACHERS

1. Teachers of trade shop work—unit trade, unit technical and part-time.
2. General industrial shop work in general industrial or part-time schools, also valid for industrial arts in junior and senior high schools.
3. Vocational technical subjects in unit technical schools.
4. Related technical subjects in unit trade and part-time schools.
5. Homemaking in part-time schools.
6. Homemaking in high school departments of homemaking.
7. Commercial subjects in part-time schools.
8. General subjects in unit trade and part-time schools.
9. Trade, industrial, technical, commercial, homemaking, other occupational subjects in evening, or day part-time and cooperative classes.

VOCATIONAL GUIDANCE TEACHERS

1. Teachers of vocational and educational guidance.
2. Permanent and 3 year renewable limited.

DIRECTORS CERTIFICATE

1. Permanent vocational directors certificate.
2. One year provisional directors certificate—renewable for one year periods.

SUPERVISORS CERTIFICATES

1. Permanent vocational supervisors certificate.
2. One year provisionsl vocational supervisors certificate—renewable for one year periods.
3. Kinds of supervisors certificates—
   Part-time Education
   Industrial and technical education —includes industrial arts.
   Homemaking Education.
   Commercial Education.

IMPROVEMENT OF TEACHERS IN SERVICE

1. Required every 3 years—
   90 hours of professional training or 10 weeks approved employment.
2. Exemptions—
   Attainment of maximum salary under schedule.
   Holders of directors and supervisors life certificates.

RESULTS OF PLAN

1. Greatly improved teaching.
2. Greatly improved professional attitude on part of teachers.
3. Improved attitude on part of school authorities toward vocational education.
4. Increased amount of research work on part of teachers.
5. Opened the way for trade teachers who were not high school graduates to earn degrees.
6. Has helped to improve salary standards.

NEW ORLEANS A. V. A. CONVENTION

R. R. Fare Reduced

One and One-half Fare

THE railroad Trunk Lines of the United States have granted a fare of one and one-half on the certificate plan. This rate will apply only in case 250 or more of those in attendance present certificates secured at the time of the purchase of tickets at the starting point.

Do not fail to secure from the agent at your starting point the required certificate. Ask him about it today. Do not wait until the day you start to New Orleans.

Turn in your ticket at the registration desk immediately upon your arrival at New Orleans. You can not purchase ticket at reduced rate for return trip, if your certificate is not properly validated at the Convention.

Do not fail to secure certificate, because unless 250 certificates or more are validated no one can secure reduced fare for return trip.

J. M. Smith, Secy

AMERICAN VOCATIONAL ASSOCIATION